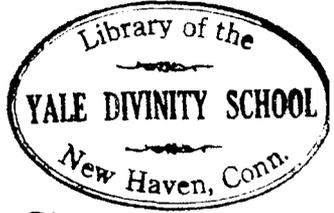




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## FOREIGN BODIES IN THE AIR AND FOOD PASSAGES AMONG THE CHINESE

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This report is based on a study of thirty cases of foreign bodies in the air and food passages which have been treated in the Hospital of the Peking Union Medical College. No attempt has been made to describe in detail the symptoms, diagnosis, and the many factors concerned in the endoscopic removal of the foreign bodies because these have been fully described in the literature.

We know by the large number of cases reported by Chevalier Jackson, and many others in the United States that foreign body accidents are of common occurrence, but why do we not have more such cases among the Chinese? For eight years in this hospital there have been thirty cases on record, among these eleven were in the air, and nineteen in the food passages. No attempt has been made to secure statistical information for comparison, because such cases are generally referred to this hospital for treatment in this city, and we have had cases referred to us from places as far off as Nanking and Paotingfu.

Not all hospitals in China are equipped with a complete set of bronchoscopic instruments, and indeed there are too few men who are able to do satisfactory bronchoscopy or esophagoscopy.

Of the thirty cases embodied in this report, seventeen occurred in boys under ten years old, nine occurred in males between the ages of 10 and 48, and four in women from 16 to 48 years of age.

Safety pins, shawl pins, collar buttons, tacks, and many varieties of small toys which form the largest number of foreign bodies swallowed in occidental countries are rarely used in China. Peanuts, and melon seeds are extensively used by both old and young in this country chiefly as a tit-bit to appease hunger between meals. Of the thirty

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cases embodied in this report there were two cases of a peanut in the lung. It is essential to remember that in obscure pulmonary or bronchial conditions foreign bodies, especially peanuts or melon seeds must be excluded.

CASE REPORTS

CASE 1. *Copper coin in Esophagus.*

Boy, 6 years old, put a copper in his mouth and swallowed it. For four days he was able to swallow only liquid food. All solid was regurgitated. Roentgen ray study showed the coin in the esophagus at the level of the clavicle. Esophagoscopy was done by Dr. H. R. Slack under general anesthesia, the coin was removed, and the child went home well in three days.

CASE 2. *Silver dollar in Esophagus.*

Soldier, 25 years old. Four days before admission while holding a silver dollar between his teeth he went to sleep and suddenly choked. He tried every means to remove the dollar in the throat but was unsuccessful. Since the accident he was able to take only liquid in small quantities and felt pain in the cervical region. Fluoroscopic examination showed the foreign body, apparently a silver dollar, lying crosswise in the esophagus at the sternal notch. It was removed by esophagoscopy by Dr. T. King. The patient was discharged cured two days after admission.

CASE 3. *Wooden whistle in left Bronchus.*

Boy, 8 years old, was given a wooden whistle to play with. He put it in his mouth, then had a sudden choking attack. The child was immediately brought to Dr. Lewis in Paotingfu who performed a tracheotomy. This, however did not relieve the dyspnea or the cough. On admission four days after, the temperature was 39.9 C. pulse 140, resp. 38. There was a wheeze heard on expiration. The physical signs were typical of obstructive emphysema of the left lung. There was limitation of expansion of the left chest. Rales, however, could be heard all over the chest with dullness over the left base. The roentgen ray study showed that the lung field in the left lower lobe seemed more dense and hazy. On bronchoscopy, without anesthesia the day of admission, I found the larynx and trachea were intensely inflamed, free pus coming from below. The whistle was seen at the entrance of the left main bronchus and was grasped at its upper end with side-grasping forceps and removed. Following removal, the tracheotomy tube was reinserted and the child sent to a ward for further observation. The temperature, pulse, and respiration gradually came down to normal a week after admission, and stayed down for



*Case 1*



*Case 2*



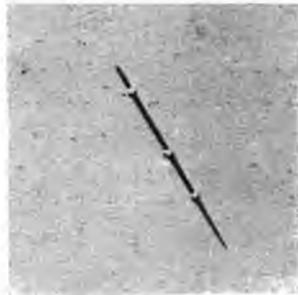
*Case 3*



*Case 4*



*Case 5*



*Case 6*



*Case 7*



*Case 8*



*Case 9*



*Case 10*



*Case 11*



*Case 15*

about ten days, then the temperature started to go up again, running between 37 and 39 with physical signs of lung abscess in the left lower chest. The child's condition became progressively worse and he died four months later. Autopsy showed abscesses of left lower and upper lobes.

**CASE 4.** *Two copper coins in Esophagus.*

Boy, 18 years old. Three hours before admission while lying flat on his back his brother put two copper coins in his mouth. On account of fear that he might swallow them, he got excited and suddenly choked and gagged. On admission the patient was walking about with his head bent forward so that the coppers should not 'slip further down' the throat. Fluoroscopic examination revealed two copper coins overlapping each other in the esophagus at a level just below the sternal notch. Esophagoscopy was done by Dr. M. L. Hu under general anesthesia. The copper coins were removed without difficulty and the patient discharged cured the next day.

**CASE 5.** *Thumb tack in Esophagus.*

Boy, 15 years old. Six hours before admission he choked on a paper tack which he had placed in his mouth. Since the accident he could not take even liquids on account of pain in the throat. Roentgen ray examination showed the tack in the esophagus at the level of the 7th. cervical vertebra. The point of the tack was directed backwards. On esophagoscopy, I found the tack lodged at the suprasternal notch, below the cricopharyngeal fold. It was removed without difficulty. No anesthetic was used. He had no further trouble.

**CASE 6.** *Needle in Hypopharynx.*

Woman, 21 years old, while talking, holding a sewing needle between her teeth, suddenly felt the needle slip down her throat. When admitted to the clinic 6 days after the accident she complained of severe piercing pain in the left side of her larynx, being able only to swallow liquids. By indirect laryngoscopy, a needle was seen lying crosswise antero-posteriorly above the left arytenoid. The needle was successfully removed and the patient sent home well.

**CASE 7.** *Sewing Needle in Esophagus,*

A girl, 17 years old, five days before admission swallowed a needle which she had in her mouth. Since the accident she was able to take only liquid food in very small quantities. Roentgen ray examination showed a sewing needle in the esophagus about the level of the 7th. cervical vertebra. The needle was removed by esophagoscopy and the patient went home cured two days after admission.

**CASE 8.** *Copper coin in Esophagus.*

A boy, 10 years old, while playing with a copper coin, put it in his mouth, gagged, and the coin disappeared. On admission twelve hours after the child was unable to swallow anything. Roentgen ray examination showed a copper coin in the esophagus at the suprasternal notch. Esophagoscopy was done and the coin removed. The patient went home well the next day.

**CASE 9.** *Metallic disc in Esophagus.*

A boy, 8 years old, while getting dressed, put a rounded metallic disc in his mouth and accidentally swallowed it. On admission to the hospital an hour after the accident, he complained of pain in the throat, low down. No attempt had been made to swallow food or liquids. Fluoroscopic examination revealed a rounded disc in the esophagus at the sternal notch. At esophagoscopy the foreign body was removed and the patient returned home cured the next day.

**CASE 10.** *Copper coin in Esophagus.*

A boy, 9 years old, while playing with a copper coin put it in his mouth and swallowed it. There was coughing, vomiting, and pain in the throat followed by dysphagia. After waiting twelve hours for the coin to be passed, he was brought to this hospital. Roentgen ray examination showed the coin in the esophagus opposite the suprasternal notch. The coin was removed by esophagoscopy, and he went home cured the next day.

**CASE 11.** *Copper coin in Esophagus.*

A boy, 6 years old, put a copper coin in his mouth and swallowed it. On admission two days after the accident, while the child seemed comfortable, and was able to swallow liquid food in small quantities, a copper coin was seen in the cervical esophagus, by roentgen ray examination. It was removed without difficulty and the patient went home well the next day.

**CASE 12.** *Coin in Trachea (Specimen lost.)*

The case was a child of 5 years in which a coin had entered the trachea. He was able to breathe without a great deal of difficulty. The coin with hole in center was removed from the trachea by bronchoscopy. The child was discharged from the hospital well in three days. Six years have elapsed since the removal of the foreign body and the father of the child reported recently that the child has remained well during this time.

**CASE 13.** *Lotus seed in Larynx (Specimen lost.)*

Half of a lotus seed was removed from the larynx of a child of 4 years old. Child was discharged well.

**CASE 14.** *Wooden whistle in Bronchus (Specimen lost.)*

Small wooden whistle was removed from the left main bronchus 6 years ago in a child of 6 years. The child died afterwards of pneumonia.

**CASE 15.** *Sewing Needle in Hypopharynx.*

A woman, 52 years old, was holding a needle between her teeth and tried to break off the thread which was attached to it. Suddenly she felt the needle slip into her throat and lodge in the right side. On admission four hours later she complained of a sharp pain as if it were sticking in the right side of the larynx. Roentgen ray examination showed a "sewing needle apparently in the pharynx opposite the first, second, and fourth cervical vertebra. The point is directed upward and the butt downward." The needle was removed by indirect laryngoscopy from the right pyriform sinus, and the patient went home cured.

**CASE 16.** *Bolus of meat in Esophagus (Specimen lost)*

A man, aged 35 years, choked while eating chicken. Following the accident, he had complete aphagia, regurgitating even his own saliva. On admission four hours later, the patient was in considerable distress, but in good general condition. On esophagoscopy, I found a bolus of meat in the esophagus, just below the cricopharyngeal fold. It was removed without anesthesia and the patient went home cured.

**CASE 17.** 9680. *Dental plate in Esophagus.*

Man, 34 years old, swallowed dental plate while eating. On admission an hour after the accident, the patient was not able to swallow even water. Roentgen ray showed the plate in the esophagus about an inch above the sternal notch. At esophagoscopy without anesthesia, the plate was found to be lying crosswise. It was removed after its long axis had been rotated parallel with the esophagoscope. The patient developed a temperature from 37 to 38 with slight emphysema of the neck for 5 days. He was discharged well and cured on the 6th day.

**CASE 18.** 8108. *Dental Plate in Esophagus.*

Man, 48 years old, swallowed a badly fitting dental plate a few hours before admission. He complained a great deal of pain in the neck and dysphagia, even for water. Fluoroscopic examination showed a dense

shadow in the esophagus at the sternal notch. Esophagoscopy was done under general anesthesia by Dr. Dunlap, and the plate removed. The patient was discharged cured on the third day.

CASE 19. 14374. *Dental Plate in Esophagus.*

Man, 24 years old, had a badly fitting dental plate with tooth which was swallowed while eating. The patient was referred by Dr. Wylie of Paotingfu who after an X-ray study attempted to remove the foreign body, but was unsuccessful. On admission to this hospital four days later, the patient complained of pain in the neck, and dysphagia.

Roentgen ray report by Dr. Hodges :

"A dense, irregularly shaped body, consisting of a central area about  $1\frac{1}{2} \times 1\frac{1}{2}$  cm with four projections, giving an all over diameter of about 3 cm, lies in the esophagus to the left and behind the trachea, at the level of the sternal notch."

At esophagoscopy, with local anesthesia, the foreign body was found to lie crosswise. Rotation to either side was impossible on account of the four projections attached to either end. Finally, one of the projections was cut off, and we succeeded in turning the plate's long axis parallel with the esophagoscope, and it was removed. The patient was discharged cured on the 6th day.

CASE 20. *Peanut in Trachea.*

This case was reported by Dr. Dunlap in October 1925. The summary of the history is as follows :

A boy, 5 years old choked while eating peanuts, and this was followed immediately by considerable cough with periodic attacks of cyanosis, fever and restlessness the next day and night. On admission two days later "The breathing was free at the time and apart from the history there was nothing to lead one to suspect a foreign body in the bronchus or trachea. The lung condition disclosed no localized dullness, but there were moist rales everywhere, with bronchial breathing." Temperature  $38^{\circ}6$  C. Leucocyte count 17,000, with 82% polynuclears. For four days in the hospital the child had been getting on nicely. Temperature gradually came down, respiration easier and less rapid. From the fifth until the 20th. day after admission the child's condition had been alternately better and worse. Bronchoscopy was done on the 20th. day and a piece of peanut was removed from the trachea. Patient was discharged cured a month after admission.

CASE 21. 15131. *Dental plate in Esophagus.*

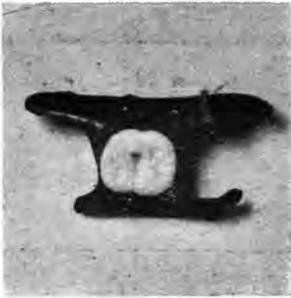
A man, 45 years old, swallowed a dental plate bearing 5 teeth which he had worn for 10 years.



*Case 17*



*Case 18*



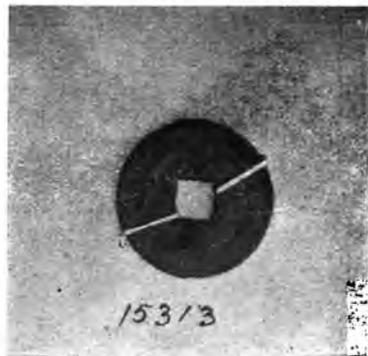
*Case 19*



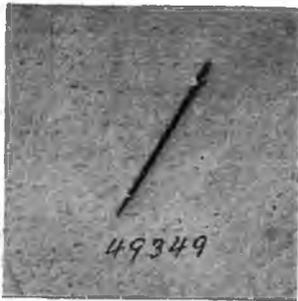
*Case 20*



*Case 21*



*Case 22*



*Case 23*



*Case 24*



*Case 25*



*Case 26*

Four hours before admission he suddenly awoke from sleep with a great deal of pain in the thyroid region and found that the plate had disappeared.

At admission no foreign body could be demonstrated in the throat which was very tender in the thyroid region.

Fluoroscopic examination by Dr. Hsieh: "Shows large, dense, foreign body in esophagus, at about the level of the seventh cervical vertebra." At esophagoscopy without anesthesia, general or local, the plate was seen at the entrance of the esophagus and removed with no difficulty. The patient was discharged cured the next day.

CASE 22. 15313. *Coin in Esophagus.*

A Swedish boy, one and half years old, suddenly choked while playing with copper coins. The mother thought that he had swallowed one and had tried every means to remove it but failed. This accident happened a week before admission. It was only during the last two days that the mother noticed the child swallowed solids with difficulty. At admission the child looked well and happy but had some tenderness in the neck low down.

Fluoroscopic examination revealed a hollow-centered cash at about the sternal notch—apparently in the esophagus.

At esophagoscopy under general anesthesia the coin was removed without difficulty. The child was discharged cured the next day.

CASE 23. 49349. *Sewing Needle in Larynx.*

A girl, 9 years old, 3 hours before admission swallowed a needle which she had in her mouth. Ever since the accident she had experienced a great deal of pain in the region of the thyroid cartilage, and had not been able to swallow anything. By indirect laryngoscopy I found the needle lying antero-posteriorly across the glottis between the vocal cords. The needle was removed with the aid of a laryngeal mirror. The child went home cured.

CASE 24. 18304. *Broken Gold Ring in Esophagus.*

A woman, 16 years old, swallowed 3 pieces of a gold ring which she had cut up in attempting suicide. Seven hours after the act she was brought to this hospital for pain in the region of the sternal notch and being unable to swallow solid food.

Fluoroscopic examination and report: "One metallic foreign body about  $1 \times 1\frac{1}{2}$  cm is seen lying in the upper third of esophagus at the level of the first and second thoracic vertebrae." At esophagoscopy, under general anesthesia I found half of a gold ring lying crosswise just below the first stricture. With Jackson's side-grasping forceps, the

broken ring was removed. The patient made an uneventful recovery and was discharged cured on the 3rd day.

CASE 25. 15754. *Dental Plate in Esophagus.*

A soldier, 29 years old, swallowed a dental plate 16 days before admission. Ever since the accident he had not been able to swallow solid food nor water without a great deal of difficulty.

On admission the patient was very much emaciated, very tender in front of the neck and complained of pain in the throat. Temperature 38.6, pulse 120.

Röntgen ray examination showed a dental plate with false tooth in the upper third of the esophagus at the level of the 6th and 7th cervical vertebrae. At esophagoscopy without general or local anesthesia the dental plate was seen imbedded in the surrounding swollen esophageal wall just below the crico-pharyngeal fold. Free pus could also be seen exuding from the right side of the foreign body. The plate was removed with some difficulty. The patient's general condition became gradually worse in spite of the removal of the foreign body and the drainage of the abscess of the neck. Two days afterwards the abscess of the neck was drained from outside and gastrostomy performed. Patient's condition gradually failed with temperature ranging between 38 and 40 for 5 days and he died on the 6th day.

*Comment:* This case illustrates clearly a sharp foreign body which had been in the esophagus too long and had perforated the esophagus with formation of abscess of the neck and suppurative mediastinitis.

CASE. 26. 17776. *Water melon seed in Trachea.*

A boy, two years old, choked while eating water melon with seeds four days before admission. Ever since the accident the child had been breathing with difficulty with paroxysmal cough and feverishness.

On admission the child was restless, respiration noisy and difficult but not prostrated. Temperature 38.8. No localized findings in chest, but scattered coarse rales and broncho-vesicular breath sounds were heard. There was marked indrawing at clavicles, sternal notch and epigastrium.

Fluoroscopic examination of the chest revealed no foreign body in trachea or bronchi, bronchoscopy was done the next day without anesthesia, general or local. A water melon seed was seen moving up and down in the trachea through a No. 4 Jackson's bronchoscope. This was grasped by a side grasping forceps and removed. In the afternoon of the same day the respiration became increasingly difficult in spite of the foreign body having been removed. At the time I strongly suspected edema of the glottis probably due to a traumatized

condition of the larynx during the manipulation of the instrument at bronchoscopy. So tracheotomy was performed and the dyspnoea was immediately relieved. The temperature of the child had never been above 38 since the removal of the foreign body and came down to normal within 5 days. Rales in chest gradually disappeared. The child was decannulized eleven days after admission and the tracheotomy wound healed three days afterwards. The patient was sent home cured three weeks after admission.

**CASE 27. *Foreign Body in Bronchus.***

A female child, one year of age, choked while eating peanuts the night before admission. Immediately after the choking attack the child breathed with a great deal of difficulty with occasional cyanosis and aphonia.

On admission the child was restless and some what cyanotic. There were marked indrawing of the epigastrium, sternal notch and the clavicular regions with each inspiration. Wheezing respiration was quite marked. Throat examination revealed no inflammation or membrane. Temperature 39.6, pulse 140., respiration 44. Chest examination revealed impairment of percussion note and diminished breath sounds on both sides.

Roentgen ray examination and report of Dr. P. C. Hodges :

“Partial or complete obstruction of one of the large bronchi, perhaps the main stem bronchus on the right side, with production of edematous mass in the right hilum and consignment atelectasis right lung.”

Bronchoscopy done by Dr. A. M. Dunlap after a tracheotomy had been performed revealed a fair amount of tenacious mucoid membrane in the trachea and both bronchi. This membrane was removed and no foreign body such as a peanut could be demonstrated. The child's condition was much improved after this operation and she was sent back to ward. The difficulty in breathing became gradually worse again during the night. Physical examination at this time by Dr. K. T. Chen showed :

“Lungs—impaired resonance right upper front. Dullness left middle back at angle of scapula. Inspiration over left middle back noisy. Expiration just audible. Breath sounds diminished over left base. Only medium sized bubbling rales heard—widely scattered. Throat red. No membrane seen. Impression—Foreign body or mucous in left middle bronchus causing atelectasis of middle left and emphysema lower left.”

Bronchoscopy was again performed the next morning and again detected a great deal of tenacious mucoid membrane blocking almost the entire lumen of the trachea and the two main bronchi. The child ceased respiration in spite of the removal of as much as possible of the

mucoid membrane and of an adrenalin injection. The temperature at the time of death, the 3rd day after admission to the hospital, was 39.6.

**CASE 28.** 15786. *Fish Bone in Esophagus.*

A man, 45 years old, while eating fish suddenly felt sticking pain in throat 3 days before admission. Ever since, the patient had not been able to swallow solid food.

Roentgen ray examination showed no foreign body in the air nor the food passages. While in the ward, the patient had a sudden paroxysm of cough and as a result the bone was coughed out. The patient was discharged well on the 6th day.

**CASE 29.** 18114. *Water Melon Seed in Trachea.*

A girl, 6 years old, while eating water melon a week before admission was slapped on her back by her father. As a result of the sudden fright the child choked and coughed. Since this time she breathed with difficulty and ran a slight degree of temperature. She was referred to the hospital on the 7th. day after the accident for suspected foreign body in the respiratory tract.

On admission the history showed: Well developed and nourished young girl. Respiration somewhat difficult, with marked indrawing of clavicular regions, sternal notch and epigastrium, wheezing was present. Breath sounds harsh but not bronchial. No rales. Heart—negative. Temperature 37.8 pulse 130, respiration 28.

Roentgen ray examination and report by Dr. C. K. Hsieh:

"At the level of 1½ cm. distal to the larynx in the trachea, there is a light dense body measuring about 1½ cm. by 4 cm;" this I take to be a foreign body.

At bronchoscopy without anesthesia, general or local, a water melon seed was seen moving up and down between the carina and the larynx. This was grasped by a Jackson forward side-grasping forceps and removed. The child made an uneventful recovery and was discharged cured on the 3rd. day after admission.

**CASE 30.** 18498. *Foreign Body in Trachea.*

A male child of 10 months was given a large piece of uncooked raw potato to play with. The child suddenly choked and coughed, so the mother suspected that a piece of the potato might have gotten into the trachea or bronchi. She immediately brought the child to the hospital for treatment.

On admission immediately after the accident the child was restless, and showed very laboured respiration. There was definite wheezing with each inspiration and expiration and marked indrawing of the sternal notch and epigastrium.



*Case 27*



*Case 28*



*Case 29*



*Case 30*

At bronchoscopy without anesthesia, a small piece of raw potato was seen in the trachea and removed. This was a bitten-off piece of uncooked potato measuring about 8 mm long, 4 mm wide and 2 mm thick. The child was sent back to ward in fairly good condition until the next morning, when he became worse on account of increased difficulty in breathing. So under local anesthesia tracheotomy was done. Temperature 40.2 pulse 150, respiration 66. Chest examination at this time showed that there was very little air entering the right upper lobe.

Roentgen ray examination showed: "Massive collapse of right upper lobe and broncho-pneumonia."

The child died on the 2nd. day after admission.

*Comment.* Tracheotomized patients should be watched by expert or experienced nurses. This child had his tube blocked three hours before it was known. During the time of the blocking of the tube, the baby might have drawn in some of the soft tissue, as for example the fat which was in the wound around the tube—and caused complete obstruction of a bronchus, too late for help.

#### COMMENT AND CONCLUSIONS

1. It is our custom to admit all foreign body cases to the hospital for at least 24 hours. If no symptoms develop such as fever, emphysema of the neck, etc., the patient is then discharged.
2. There is no fixed rule regarding the administration of general anesthesia in esophageal cases. It depends on the general condition of the patient and the mechanical problems of removal in the individual case.
3. No general anesthesia is administered to bronchoscopic cases.
4. Foreign body cases are not uncommon in China. It is our duty firstly to learn the physical signs, so as to be able to recognize cases in which there may be no suspicion of a foreign body from the history; and secondly to educate the patient, or the parents of the patient, to submit to an exploration of the bronchi, since to secure the consent of the parents for a bronchoscopy and especially for a tracheotomy, in case such a procedure is necessary, is extremely difficult.
5. Careful investigation and study of all cases of obscure lung conditions should be instituted in all clinics to exclude the possibility of a foreign body in the air passages.

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**ON CRIMINAL ABORTION IN CHINA\***

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Apparently in the Ming and Ching Dynasties there was no law on the subject of abortion. Abortion was not infrequently carried out in the ranks of the Imperial entourage for political reasons, and it was not till the end of the nineteenth century that the custom became proscribed by law. It is now definitely illegal, and the New Chinese Criminal Code contains the following articles relating to this subject.

Art. 332. Any woman who by taking any drug or otherwise causes herself to miscarry shall be liable to penal servitude for a term of the fifth degree, confinement, or a fine not exceeding 100 Yuan.

Art. 333. Any person who upon the request of any woman or with her consent causes such woman to miscarry shall be liable to penal servitude for a term of the fourth or fifth degree, or confinement.

Art. 334. Any person who commits any of the following acts shall be liable to penal servitude for a term of the third, fourth, or fifth degree:—

1. To compel any woman to miscarry herself by an act of violence or threat or any treacherous means.
2. To obtain the request or consent of any woman by an act of violence or threat or any treacherous means and thereby cause her to miscarry.
3. To cause by an act of violence or threat or any treacherous means any woman to miscarry without her consent.
4. To cause any woman to give premature birth to a child by an act of violence or threat while knowing that such woman is with child.

Art. 335. Any medical practitioner, midwife, pharmacist, or medicine dealer who commits the offence under Art. 333 shall be liable to penal servitude for a term of the third, fourth, or fifth degree.

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\*Contribution from the Department of Obstetrics and Gynecology.

Any such person as mentioned in the preceding section who by any treacherous means commits any offence under art. 334 shall be liable to penal servitude for a term of the second or third degree.

Art. 336. Any person who attempts to commit the offence under subsection 1, 2, or 3, Art. 334, shall be liable to the same punishment as if he had actually committed such an offence.

Art. 337. If the commission of the offence under Art. 333 causes death or grievous bodily harm upon any woman, the offender shall be liable to penal servitude for a term of the third, fourth, or fifth degree.

If the commission of any of the offences under Art. 334 causes death or bodily harm upon any woman, the offender shall be liable to the punishment provided for in the Article or Articles dealing with offences causing death or bodily harm and be dealt with in compliance with Art. 23.

Art. 338. Any person who commits any of the offences under this Chapter may upon conviction thereof be deprived of his civil rights for term.

Unfortunately this code is not in anything like general use, and there is very little attempt to restrict what in some parts of the country and especially in the larger cities has become a serious menace and is practised by many who have no idea of the terrible risk to the patient which is involved in their procedures.

Criminal abortion in China is usually procured or attempted in one of four ways :—

- (a) Violent manipulation of the uterus from the outside.
- (b) Insertion of foreign bodies into the cervix.
- (c) The procedure known as ecbolec acupuncture.
- (d) The administration of ecbolec medicine.

With the introduction of Western medicine, there has also grown up a small class of semi-foreign trained practitioners of medicine, who have learnt the introduction of sounds and the use of the curette, but the harm done by this small class is negligible compared to that done by the older methods.

Let us consider each of these methods in detail.

(a) *Violent manipulation of the uterus from the outside.* Pounding and kneading movements are generally used, and it is reported that the procedure seldom succeeds in doing more than making the lower abdomen very tender for a time. It is said occasionally to be successful especially in multiparae.

(b) *Insertion of foreign bodies into the cervix.* These are of two kinds, one depending on an artificial irritation and dilatation of the cervix and one depending on actual damage to the ovum. There is sometimes used a portion of root shaped like a tent which is inserted

into the cervix. This is a favourite method in Yang Chow, Kiangsu. The rhizome is soaked in wine. Abortion may result, but as the root is usually not clean, sepsis may readily follow, and I have knowledge of one case of this nature which ended in tetanus with the death of the woman.

As to the second method, involving damage to the ovum, a patient was admitted into the Peking Union Medical College Hospital with severe pelvic inflammation following the insertion of a chopstick into the cervix to produce abortion. How it was that she had managed to get it in, I do not know, apparently she had managed to hit off the canal, for there was no external laceration of the cervix and she had succeeded in her attempt. Consequent on the manoeuvre, however, she nearly lost her life from septicaemia.

(c) *The procedure known as ecbohc acupuncture.* There are three positions for the puncture. The main one is termed the "Life Origin Position," and is situated three finger inches (the middle joint of the middle finger of the patient is taken as an inch) below the navel. The other two positions are termed "Sub-positions of Life Origin," and are at the right and left sides of the main position, three finger inches to each side.

The procedure is described as follows:— "At the 'Life Origin Position' a needle can be inserted to a depth of 3 to 6 inches, dependent on the health of the patient and thickness of the abdominal wall. Special manipulation, training and experience are required in performing this operation, as the needle should be inserted in such a way that it is obliquely set in half way and then turned to have a perpendicular direction, so that the desired region can be touched without perforating the urinary bladder. The same result can be obtained by inserting a needle at each of the sub-positions to a depth of 4 to 5 inches.

Unfortunately the desired result is not always obtained. A woman was brought to Taiyuanfu, Shansi, two days' cart journey from Sinchow. An abortion had been attempted by pushing a silver hairpin through the anterior abdominal wall, but it had broken off inside and the stump was palpable. A general anesthetic was given and laparotomy performed. The stump of about 3 inches in length was easily removed from the fundus of the uterus, and the patient made an uninterrupted recovery without any abortion having taken place. She would probably carry the baby to term if not again interfered with.

Another victim of ecbohc acupuncture was a woman, aet 38, Hospital No. 16482, who came to the Peking Union Medical College Hospital complaining that, while she had been asleep, a needle from her clothing had entered her abdominal wall where it had broken off. She

came to the surgical department and said nothing about pregnancy. An X-ray was taken and the needle was supposed to be in the abdominal wall. During the operation for its removal a tumour was found in the lower abdomen. She denied the possibility of pregnancy. No needle was found.

The patient was then passed over to the Gynecological Department and another X-ray having been taken, it was clear that the needle was in the abdominal cavity and probably in the uterus. When taxed with the diagnosis, she confessed that she was pregnant and that the pregnancy was an illegitimate one. Knowing that this was one of the ways of securing abortion, it was concluded that this had been attempted by acupuncture.

On March 27th 1927, the patient was prepared for operation, placed in Trendelenburg position and the abdomen was opened by a median subumbilical incision. The uterus was about the size of a 3½ months pregnancy. On the anterior surface a little to the left there was a small round red mark where the needle had entered. There was no extravasation in the uterine wall. On opening the uterus by a median incision, the upper part especially on the left side was filled with dark old clot, somewhat grumous in appearance. The needle was not seen. The whole conception, clot and needle were shelled out, the cavity rubbed out with a sponge and the uterus sutured with chromic gut in two layers. The needle was found in the middle of the blood clot and conception. The foetus was not injured, but it was clear that abortion would certainly have taken place in time. The needle was an ordinary wool or earpet needle, steel, and somewhat discoloured. It measured 7¼ centimeters. The abdomen was closed in the usual way using plain catgut for the peritoneum, chromic gut for the fascia, and fine black silk for the skin. The patient left the table in good condition and made a smooth recovery, although the section of the placenta showed an acute placentitis, undoubtedly due to infection and possibly also due to partial detachment by clot.

After we had obtained the patient's confidence, we secured from her the complete story, as follows:— Her last normal period was on December 17, 1926, but the amount of flow was less than usual. Her husband was not at home and she was betrayed by someone in the village. Later on, she found herself pregnant. Beginning from the first part of February, she began to have discomfort in the lower abdomen, but no nausea or vomiting. Then she went to see a native doctor who gave her a big piece of black medicine, the nature of which she did not know. Some time later, she began to have very slight bleeding from the vagina. This bleeding continued up to the time of coming to the hospital.

On March 15, 1927, she called a Chinese native doctor from a village near by to do an artificial secret abortion. Then she lay flat in bed with her face covered and her abdomen exposed. The doctor took a long needle not heated or disinfected in any way. This was passed perpendicularly into the abdomen just below the umbilicus. About 2 cm. of the needle projected outside the skin. She lay there for two hours, but at last she found that the needle had disappeared and was still in the abdomen. The doctor was very much frightened and looked very pale. She paid him one dollar for the treatment. During the puncture, she did not feel very much pain but she was frightened about the needle remaining in her abdomen.

Immediately after the needling, she felt perfectly well, and there was no bleeding either from the place of puncture or any increase of bleeding from vagina. The abdomen was neither painful nor distended. There was no nausea or vomiting. But three days after the needling, she began to have lower abdominal pain about two or three times a day. This kind of pain continued up to her coming to hospital. When she came in, she was still bleeding, but she had not noticed the passing of any large clot.

These two patients left the hospital well, but in others the results have been less fortunate, as the following case shows:—

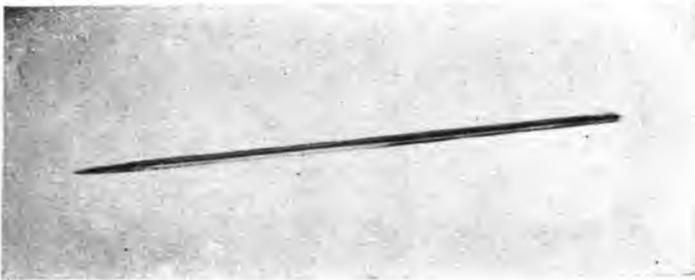
A woman, æt 43, (Hosp. No. 14358) was admitted to the Peking Union Medical College Hospital as an emergency case on July 24th, 1926, and died about 14 hours after admission. Her history was as follows:

The patient who had had eight pregnancies previously, had been a widow for six years. Five months ago she became pregnant, and was now admitted to the hospital after a complete abortion with profuse bleeding which had lasted twenty hours. Ten days before admission, patient went to a Chinese doctor who needled her twice in the lower abdomen. There was no result except for a watery vaginal discharge. On the day before admission, at 11 a.m. she again went to the Chinese doctor who again needled her twice. On the way home she felt feverish, and vomited in the tram-car. When she got home her friends drew blood from both her forearms in order to relieve her fever and nausea. At 7 p.m. on the same day, patient started to bleed. At 6:30 a.m. on July 24th, she aborted completely and had profuse bleeding up to the time of admission. She was given a dose of Chinese medicine at home before coming to the hospital.

She was a well developed and well nourished woman, mentally clear, lying in bed in a state of shock and sepsis with flushed cheeks and pallor around the mouth. Beads of perspiration were on her forehead and her hands were cold and clammy.



*1. Skiagram of needle lying in the uterine cavity.*



*2. Needle used for inducing abortion 7.25 cm. long*

Temperature 38.5. Pulse 125—very weak. Respiration 28 50/35. B. P. Heart sounds distant. The abdomen was distended and there were four red slightly elevated, millet-sized marks below the umbilicus where the patient had been needled. Palpation showed marked tenderness over both lower quadrants, with slight tenderness in upper part of abdomen and a moderate degree of rigidity. The uterus was left as a contracted mass about 4-5 cms. below umbilicus. There was slight bleeding from the vagina. There were blue marks over the anterior aspect of both forearms where patient had been needled and blood drawn. A diagnosis was made of Criminal Abortion with profuse bleeding and shock ; and Acute Peritonitis.

Morphine was given to relieve the pain, and hypodermocleisis was given to the amount of 2000 c.c. By midnight the condition was much worse, and by 4 a.m. the patient was dying. The upper and lower extremities were mottled with areas of large purplish splotches. Respiration ceased some three minutes before the heart beat.

There was no doubt about the peritonitis but since an autopsy was refused, the exact condition could not be made out. Probably a loop of bowel had been punctured and possibly there was internal hæmorrhage in addition, though the picture was one of shock and sepsis rather than one of hæmorrhage.

(d) *The administration of ecboic medicine.* This is the most uncertain, but I am assured that the three following prescriptions are all effective if used under three months. After five months no native ecboic is effective.

*Prescription 1.*

14 pcs Cantharides (Mylabris)  
2 „ Lady-bugs  
1.5 gms Native calomel  
5.6 „ Scale of Pangolin  
5.6 „ Horse-leech  
1.9 „ Horse-fly  
1.9 „ Cast skin of Cicada

The drugs are finely powdered, thoroughly mixed, made into thin liquid with addition of "Yellow wine" (millet wine) and then taken.

*Prescription 2.*

11.2 gms of each of the following drugs:—  
Root of smallage; Angelica Anomala  
Root of red peony  
Tibetan saffron  
Peach kernels  
Sappan Wood  
Xylosma ramemosa  
Dianthus superbus

*Achryanthes bidentata*

Root of ginger-like plant, "San-leng"

Root of ginger-like plant, mule-wort (?)

Dried varnish-tree wood

The drugs are boiled with water. The decanted liquor is mixed with 0.37 gram musk and 75 grams of yellow wine, and then taken. The ecboic power will be reenforced by the addition of 11.2 to 14.9 grams of rhubarb.

*Prescription 3.*

3.7 gms. musk

11.2 ,, gourd-like plant root, powdered

11.2 ,, thorns of shittah-tree, powdered

Excess of native onion root (the large white stick)

The former three are ground in a mortar with sufficient onion stick so that a thick paste is obtained. The stick paste is placed in a silk bag, about 2.5 cm. in diameter provided with a thread at the tied end. When in use the vagina is continuously plugged with this bag, leaving the thread outside. One week is required for this treatment. The embryo will die and disappear.

The physician who gave these prescriptions said that he had found the first two effective several times.

The last prescription is said to be very effective and the tampon once prepared can be used two or more times. If the patient feels nauseated during the treatment, she should rinse her mouth with liquorice-water from time to time.

Quite a number of cases have come into our hands suffering from the after-effects of these drugs, which are used all over North China. Take, for example, a woman æt 39, (Hosp. No. 1562) admitted to the Peking Union Medical College Hospital on April 11th, 1927. She was first sent to me in January 1922, for pregnancy with osteomalacia. The contraction in this case was not extreme but a test of labour proving unsatisfactory, Cæsarean Section was performed with good results and she was sent home with directions as to diet and sunshine. The osteomalacia has never recurred although she lives in an area which is seriously affected by the disease.

Three years ago she again became pregnant and during the third month she applied the third prescription given above as a tampon in the vagina. Five days afterwards the fœtus came away. The treatment caused great swelling of the vulva and presumably of the vagina. She bled for over a month. Since that time she has had severe dysmenorrhœa at each period, the pain ceasing with the passage of yellowish discharge and blood. The vagina is blocked up by strong

fibrous tissue about  $1\frac{1}{2}$  inches from the outlet. A little hole far on the left side serves as the external os. There is no dilatation of the vagina behind the stricture, as the vagina has been obliterated, and the uterus is buried in adhesions and bound up with the stricture.

In another case seen in the autumn of 1927, a young woman came to the outpatient department very ill, with a temperature of  $39^{\circ}$ . She was between 5 and 6 months pregnant, and the foetus was alive. Desiring to rid herself of the pregnancy, a day or two before she had secured one of these medicated tampons, and inserted it into the vagina. Owing to pain she had removed it after twenty four hours. The whole of the upper third of the vagina was swollen, ulcerated and covered with a yellowish exudate. The cervix was oedematous, covered with a yellowish exudate except where pus was oozing from ulcerations which had already formed. She refused to enter hospital and if she survived, she would certainly be left with a bad atresia of the vagina.

In two more cases the treatment appeared to have produced an acute nephritis and in one of these cases there was little doubt that lead had been administered. Both died with generalized oedema and uraemia and in neither case was it possible to obtain further information.

In conclusion I wish to express my hearty thanks to Mr. C. T. Feng, Assistant in the Department of Pharmacology, for his help in obtaining some of the data contained in this paper.

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## THE ETIOLOGICAL FACTORS IN INTRAOCULAR HEMORRHAGE

### A REVIEW WITH REPORT OF A CASE

CYRIL M. CANRIGHT, A.B., M.D.

Although a fairly considerable literature has arisen upon the question of intraocular hemorrhage, until recent times very little attention has been paid to certain etiological factors that appear to be very pertinent in the light of a thorough and adequate treatment. Certain cases with very suggestive tubercular symptoms and signs, and those cases of frank tuberculous origin that do not respond to any form or amount of treatment do not properly come in the scope of this paper. In that large percentage of cases however, in which various measures have been used and still the hemorrhages continue, and tuberculosis and other chronic disease that does not admit of cure have been ruled out definitely, no stone should be left unturned in the search for a possible cause. When the serious outcome of a possible total blindness in one or both eyes comes to mind, no amount of "expectant" or "alterative" treatment can ever be justified in these cases.

My attention has been called to this question very forcibly by my having experienced personally two hemorrhages into the vitreous of the right eye. In fact, I believe that I represent the only case of intraocular hemorrhage that has been reported of a physician having had the hemorrhage, himself. Woods does record a case of a physician under his care who suffered from hemorrhages into the vitreous, but that particular physician had the grace to stay out of print from his own volition. In one sense I may perhaps be excused for writing upon this subject of which I have but the experience gleaned from ten months observation of my own eye, and that is that I am so to speak "looking upon the beam within my own eye" when I am doing it. At first my interest was primarily and perhaps excusably focused upon the matter of treatment, but since then the matter of etiology has become of paramount interest, and is rightly the more important from the standpoint of intelligent treatment.

A rather careful perusal of the literature of the past ten years and longer shows a somewhat limited number of reported cases that have been studied from the standpoint of etiology. Theories of causation have been various. Practically all authorities mention that cases are most frequent in males, that they are associated with epistaxis and constipation, and most authorities conclude that the largest number are of tuberculous origin. Other causes include diseases of the blood, leucemias, anemias, hemophilia and such pathological entities as diabetes, syphilis, malaria, and the arthritides. Hyperthyroidism and other endocrin anomalies, with such symptoms as vicarious epistaxis and vicarious menstruation have been grouped here. Some authorities have named it as a condition accompanying the changes of puberty, others place it among the entities that affect chiefly young persons thus including those beyond the adolescent age. This is done to exclude the cases among elderly people that could be considered as due to atheromatous or arteriosclerotic vessels of the eye. Godwin feels that if the underlying pathological conditions be studied, however, it might justly be questioned whether any age limit should be set. Trauma, hypertension with or without renal disease, nephritis and glaucoma we find mentioned as causative factors of intraocular hemorrhage. It may occur spontaneously in choroiditis and retinitis, and in eyes apparently otherwise normal. Refractive errors have been held responsible (myopia of high degree). Two cases were mentioned in the literature in which errors in diet were held responsible for the intraocular hemorrhage, the hemorrhage following the eating of strawberries and peaches. Lewis believes that the action of bacterial toxins upon the intercellular substance of the vessel wall brings about lysis and the consequent hemorrhage. Severe mental excitement or depression was

thought to be a cause in a case mentioned by Kraus. A few authors have mentioned focal infection as a possible, or in some cases have demonstrated it as the cause. Three standard textbooks of Ophthalmology do not place focal infection among the list of causes, although Fuchs-Duane, under Treatment mentions that "any remote source of infection should be sought for and removed". De Schweinitz recognises this factor as demonstrated in some of his later writings, but has not laid great stress upon it. He says that the elimination of "infected and diseased areas is a perfectly proper treatment whether they be demonstrated as etiological factors or not."

Finoff in 1921 summarized a series of cases including five of his own. The major number of cases having been those furnished him by other Ophthalmologists showed a large number of causes thought to be pertinent, including foci of infection. Two of his own cases were thought to be due to a localized infection. He comes to the conclusion that tuberculosis of the vessels, especially of the veins is one of the etiological factors, lues is an occasional, and focal infection is a possible cause. Woods, Radcliffe, Appleman and Tenner each report one case due to dental infection, and Lewis reports two cases with pyorrhea, one of which also had maxillary sinusitis. Many examples have been mentioned in Dental literature in which this condition was thought to be due to dental pathology. Pereira Gomas of Rio de Janeiro in a study of forty cases of eye diseases of dental origin that were followed over a period of two years found that retinitis and choroiditis was the common result of such infection. Godwin gives us a record of a case of chorioretinitis and recurrent hemorrhages into the retina and vitreous that was most convincingly traced to multiple foci of infection. Each time a new source of infection was discovered and eradicated, the eye cleared up and the hemorrhages ceased. In this case infected teeth, tonsils and frontal antrum were held responsible. He concludes that in his case at least (1) there was a clear relation between the appearance of the chorioretinitis and the intraocular hemorrhages, and (2) that both were related etiologically to remote foci of infection. Numerous authors mention the use of tuberculin injections in the treatment of these cases even when there is no definite proof of tubercular disease of the eye or elsewhere, and in some cases marked improvement in the eye condition has occurred. Dr. Godwin used this treatment in his case in an attempt to eliminate frequent hemorrhages that persisted for thirteen months, causing blindness, but without success. Upon the clearing up of a frontal sinus infection of small dimensions, the eye promptly cleared up.

A condition to which too little attention is given in connection with these cases is constipation. At least a third of the cases

recorded by Woods showed the particular notation that the patient had indicanuria or, if no urinalysis was recorded, it was noted in the record that the patient was constipated. De Schweinitz in a letter to Dr. Woods puts *first* among constitutional causes "so-called auto-intoxication as determined by the tests which I believe to be necessary and which are detailed in my paper on that subject before the Chicago meeting". In line with the theory proposed by Lewis that a bacterial toxin circulating in the blood was responsible for a lytic action upon the vessel wall and resulted eventually in hemorrhage is a very plausible one, since it has been demonstrated by several investigators that increased tension in the eyeball, even in a glaucoma, is rarely sufficient to cause a hemorrhage into the vitreous or retina unless some constitutional factor is present such as focal infection, arteriosclerosis, lues, nephritis, etc. The pressure, it will be remembered, of the normal eye is only 20-30 mm. of mercury, which is hardly high enough even when affected by outside factors to cause hemorrhage. Bothman and Cohen of Chicago in some studies in intraocular pressure very recently conducted, in which the effect of the intravenous injections of such powerful drugs as pituitrin, adrenalin and nicotine, were used found that although the systemic blood pressure went up from 8-90 mm. of mercury after the injection of these drugs, the intraocular pressure only went up 18-30 mm. of water, a much lighter recording medium than mercury. This increase in pressure went up in direct response to an increase in the systemic blood pressure and caused a change in the volume of blood in the choroidal and retinal vessels as seen by direct observation. From these facts it is hard to conceive of intraocular hemorrhage as a result of pressure from behind. It may be associated with arteriosclerosis, diabetes or other diseases but is not directly caused by them. Some argue that in cases of altered coagulability of the blood we can expect hemorrhage. This is doubtless true in such a rare condition as hemophilia, but the fact remains says Lewis that we may find cases of hemorrhage in those with low as well as high coagulability. This question however requires further study. E. R. Stevens pointed out twenty years ago that recurrent hemorrhages may be accompanied by low blood pressure. These facts then lead to the inevitable conclusion that neither blood pressure nor coagulability is the essential fact to be reckoned with, but that back of this is another element which has not yet been fully recognized. The bacterial toxin theory of Lewis in the light of the facts noted above seems best to answer this. However, I do not feel that bacterial toxins alone are responsible as does Lewis, but that the protean decomposition products that are constantly being produced in the colon of the chronically constipated individual when absorbed into

the bloodstream act as "softeners" of the delicately walled end vessels and capillaries in the eye. Combining with these are other factors as bacterial toxins from foci of infection, the toxin of the colon bacillus, streptococcus hemolyticus etc, and constitutional disease that has also directly affected the vessel walls.

I have yet to find the denial of the fact that the tubercle bacillus, the spirochaete of syphilis and perhaps many other organisms are capable of producing these changes in the vessels by the lytic action of their endotheliotoxins. The investigations of Vaughan and Wheeler in 1903 in which they demonstrated that the colon bacillus contains a highly active poison was epoch-making and vitally important in this connection. It is of course a well known fact that syphilis causes changes in vessel walls but whether it is the toxin or some other process that does this is not clear. The hemorrhages into the lungs in tuberculosis and the intraocular hemorrhage in tuberculosis of the eye are well known phenomena, but the exact process that produces these changes has not to my knowledge a satisfactory answer. The poison given off by these various strains of organisms is far from complete in its data. It is known, however, that several varieties produce hemolysis. The effect is not unlike that of snake venoms, which Flexner has shown contain a chemical substance having a definite endotheliotoxic action or a solvent effect on the intercellular substance. Wells considers it quite probable that of the chemical agencies causing hemolysis the bacterial products are most important. It is quite probable that the bacterial poisons that cause marked hemolysis likewise contain endotheliotoxins. Could it not be true then that the protean decomposition products that are absorbed during constipation also have this marked solvent effect upon the vessel wall? When we consider the large amount of absorbing surface of the human intestine it seems highly probable that a greater amount of putrefactive and other decomposition products from the intestines should be absorbed than one would find from a small infective focus for example. Godwin in his recent paper on this subject makes the suggestion that "all cases regardless of age may be of similar etiology, and simply variations of the same pathological process" and in the light of his evidence and the facts above presented, we feel that he is nearer the real truth than those who present a host of etiological factors and yet have not been able to effect a permanent cure after treatment of the alleged cause.

A summary of the findings in my case may serve to clarify and substantiate some of the statements that I have already made. The case report outline follows :

C. M. C. male, age 32. Dental infection in 1919, that produced an iritis in the right eye lasting two months, which cleared up following the extraction of

the offending tooth. In the summer of 1926, a mild iritis again developed in the right eye. This time there was a distressing sense of fulness in the eye accompanied by aching. I placed myself under the care of a competent ophthalmologist in Buffalo, N. Y. He diagnosed iritis and prescribed atropin, also advising a thorough search for foci of infection. Infected tags of tonsil were found and removed, (I had had a tonsillectomy done by the snare method in 1913). Just previous to this second tonsillectomy, I had had a radical maxillary sinus operation done on the left. The removal of these foci did not relieve the tension symptoms in the right eye, although the iritis disappeared. We then sailed for China. Going up the Yangtse River to Chengtu, Szechuan, our diet was largely composed of meat and fish, very little vegetable being offered to us. We would have four or five courses of meat offered us at one meal. Marked constipation was the result as well as the absorption of large amounts of putrefactive poisons. After reaching Chengtu the constipation was not overcome and there was a more or less constant sense of something wrong in the right eye. After being in Chengtu a little over a month the first hemorrhage occurred following the blowing up of a toy balloon. At first the appearance was that of many red cells and a haze of other blood elements, a red granular cloud obstructing distant vision. The cellular elements disappeared fairly rapidly and fibrin strands floated out into the vitreous within a very few days. Against the advice contained in most texts I did not remain in bed, but took a long walk the day following the hemorrhage and the greater portion of the hemorrhage cleared up. It might be added that I was under great mental stress during this period and perhaps this had something to do with the accident. About a month later while going down river again, the second hemorrhage occurred, this time following some heavy lifting. Atropin administered by another physician did not relieve the eye, the hemorrhage was not lessened and the sense of fulness was increased, the symptom being very distressing. I discontinued this medication of my own accord. At Hankow, I secured some sodium iodide which was taken per os. The first day or so after the use of this drug, the absorption of the hemorrhage increased rapidly, after this it became almost negligible, but I continued the use of it nevertheless. The response to the drug was in direct relation to the length of time after the hemorrhage. During the month of July (1927) I developed acute dysentery which again brought on marked inflammation of the iris and conjunctiva and tension symptoms. At the height of the inflammatory process in the eye the increased tension became very painful. Again an ophthalmologist cared for me and he advised catharsis for the alimentary disease. Aspirin relieved the pain and seemed also to relieve the tension, for it decreased after the use of this drug spectacularly within the space of an hour or two. No further hemorrhage. An organized clot now floats about in my right eye, and at times is very embarrassing to vision, being worst at dusk. This opacity floats out from the temporal side of the eye into the central field of vision and when looking into a microscope its structure is readily made out, it being composed of numerous mycelial-like strands attached to one another in a loose mesh-like arrangement. Physical examination. Heart and lungs are negative for any active lesion, as determined by clinical exam. and X-Ray. Abdomen negative. X-Ray of the teeth shows pyorrhea and rarification of the alveolar processes in places. Urinalysis negative. Blood Wass. negative. Blood chemistry, sugar-117.6 mg. N. P. N. 35. 4 mg., uric acid 4.2 and creatininel. 6 mg. per c. mm. Eye exam: Vision R. 6/6-3, L. 6/4.5. Ophthalmoscopic exam. shows a whitish choroiditis patch external and above the macula, the macula lying about half way between the disc and the whitish patch. B. P. 106/76.

Three points are worth making when reviewing the record above. (1) That disturbances of the alimentary tract either predisposed, or were the direct cause of an inflammatory process or hemorrhage into the eye. (2) That the direct cause of the hemorrhage in each case was probably increased pressure within the eye itself. (3) That an eye once having been affected by an infective process nearby is doubly liable to succumb in the future to other disorders affecting the general organism, this being well borne out in my case. The left eye was not affected at any time. To substantiate what I have said about protein decomposition products and their hemolysing effect upon the end vessels, intraocular hemorrhage would most likely not have occurred if I had had a normal diet and had not been severely constipated at the time of the hemorrhages. It is hard to conceive of increased tension in the eye alone being able to cause intraocular hemorrhage, for under normal conditions I have done heavy lifting before and since the time of these hemorrhages without ill effects. An additional factor is necessary, and in this case we have protein decomposition products and focal infection to consider, considerable pyorrhea alveolaris being present in the mouth. Pyorrhea has been blamed for so many disease syndromes that it seems hardly possible to add another one. It would seem that the protein poisons absorbed from the intestines would be in much greater volume in the blood than that absorbed from a few pyorrhea pockets, but their greater proximity to the eye may make them the more important of the two factors.

Finnoff feels that because of the many conditions that have been proposed as causes of this syndrome, it is very essential to go into every factor, and in his article (7) he has recommended a very thorough and comprehensive method by which to study these cases, feeling that only through such a uniform procedure can we establish or eliminate the causes in these cases. This is most important in the light of the serious consequences that are possible.

1. In *conclusion*, I would again stress the importance of a thorough study of these cases from the etiological standpoint so that a more scientific knowledge of the causes may be established, and therefore a more intelligent treatment applied.

2. I propose a new stress upon constipation as an etiological factor, because of the large amount of protein decomposition products set free in the circulation, and its probable mytic action upon the vessel walls in the eye.

3. Search for foci of infection is always indicated in these cases and should never be omitted.

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**THE DIFFERENTIAL DIAGNOSIS OF EARLY PULMONARY  
TUBERCULOSIS AND MITRAL DISEASE\***

DR. M. H. CHEN, Changsha

The consideration that led to the investigation of this subject was the striking fact that an unusually high percentage of mitral disease had been encountered in our tuberculosis clinic and that we find a marked resemblance of symptoms in these two conditions. Among 153 cases seen in the tuberculosis clinic, there occurred 13 or 8.4% instances of mitral disease.

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Some patients, who had visited our tuberculosis clinic for weeks and even months, turned out to have mitral disease with pulmonary infarct. These patients bear a close resemblance to pulmonary tuberculosis both in respect to symptoms and to signs. The patient suffers from chronic productive cough, frequent attacks of hemoptysis, afternoon fever, night sweat, dyspnea, underweight, and rales are present in the lungs.

Case Illustrations:—Cases are presented here with the idea of showing the marked resemblance of symptoms in pulmonary tuberculosis and mitral disease.

CASE I. Mr. L.W.H., Chinese teacher, aged 38, entered the hospital on Feb. 19, 1926, complaining of spitting of blood for 12 months. His father died of hemoptysis twenty seven years ago. He denied any previous cardiac or pulmonary symptoms. The present illness started about one year ago with cough and moderate nonpurulent white sputum for ten days, followed by bloody sputum for four days, and finally by hemoptysis, "two bowlfuls of blood daily for 45 days. After a period of subsidence for half a month, bloody sputum was again noticed for two months and then attacks of hemoptysis lasted for another six months subsiding to merely bloody sputum up to the time of admission. At the onset of each attack of hemoptysis, he suffered from agonizing cough, dyspnea, and discomfort in the chest which were considerably relieved thereafter. Occasionally night sweats were noticed during the illness.

He was fairly nourished. Physical examination showed his lung apices were free. The right lower back of the chest showed signs of consolidation with numerous moist rales. Heart had a presystolic thrill and was enlarged on both sides, P 2 was accentuated and greater than A 2. A systolic murmur, best heard at mitral area, was transmitted to axilla. Blood pressure systolic 96, diastolic 62. Abdomen and extremities were negative. W. B. C. 7,200, R. B. C. 4,950,000. Hemoglobin 85%. Feces and urine were negative. Sputum was frothy and homogeneously bright red resembling pure blood, microscopically it showed R.B.C., W.B.C., elastic fibers and epithelial cells but was negative for tubercle bacilli in 36 specimens. Report of the roentgen ray examination of the chest read.

"The left diaphragm and costo-phrenic angle are clear, the right obscured. The right side of the heart is obscured so that its size cannot be determined. The hilus shows numerous small calcified areas and the linear markings are accentuated on both sides. The right lower is consolidated."

Patient stayed in the hospital for three months and was discharged improved. He had bloody sputum every day while in the hospital and continues to have it after discharge up to the present time. Small hemoptysis-10 cc blood was occasionally observed in the hospital. The final diagnosis of his case was mitral disease complicated with pulmonary infarct.

CASE II. H. T. L., A Chinese school boy of 16, admitted Jan. 6, 1926, for frequent attacks of hemoptysis of three years duration. Family and past history were unimportant. Present illness began three years ago with cough and sputum which was greenish in color and foul in smell and occasionally blood tinged. A few weeks later the patient was suddenly seized with hemoptysis "One big rice bowlful of blood daily for one month." Such attacks as this had been coming on during every season of the year. The duration of the periods of hemoptysis has been shortened this year. The last attack was about two weeks ago lasting for one week. Throughout his illness, starting three years ago, he has suffered from loss of weight, weakness, occasional dizziness, afternoon fever (37.3 C to 37.5 C), night sweats, dyspnea and palpitation of heart on exertion. Patient could not lie on his left side or lie flat as it always resulted in productive cough and noises in the chest. He was emaciated and pale. Lung apices showed no dullness and no rale; but moist rales, heard in left base extended up to left hilus and left axilla to the apical region of the heart. There was a dollar sized area in left axilla with bronchial breathing, increased tactile fremitus and voice sound and presence of coarse moist rales.

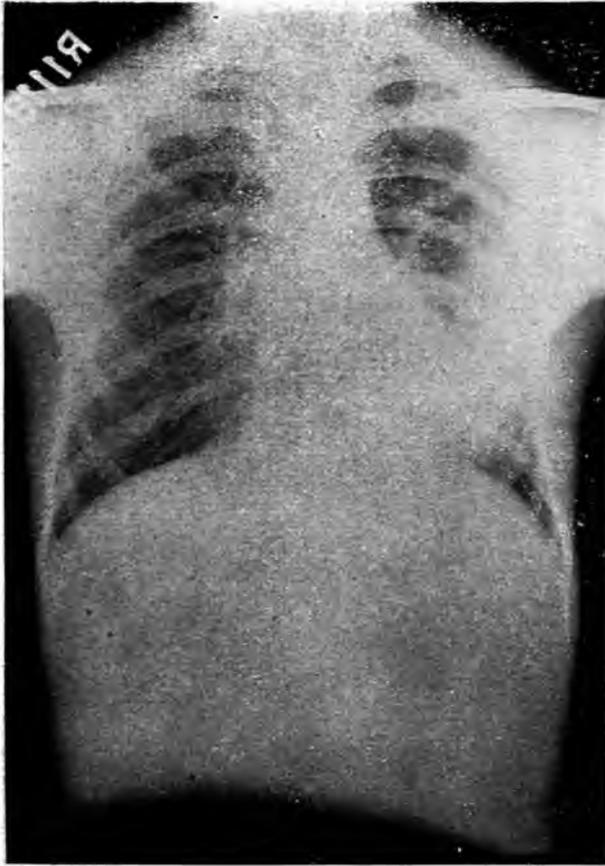
The heart was enlarged two cms. beyond the left middle clavicular line. Dullness was discovered under lower sternum and sterno-hepatic angle; P 2 greater than A 2 and accentuated. A loud systolic murmur was best heard at apex and a presystolic whiff at the base. Pulse was good and regular, 100 times per min. Blood pressure, systolic 100, diastolic 60. Abdomen was negative. No edema shown on legs. Roentgenologic report of the chest:

"The chest is depressed on the left, the diaphragm lines and costophrenic angles are clear. The heart is displaced to the left. The hilus shadows are increased and the linear markings are accentuated. There is a localized area of increased density on the left side between the third and sixth ribs."

Urine and stool were negative. W.B.C. 5,600 Hemoglobin 75% differential count showed 68% polys. and 32% lymphocytes. Sputum was repeatedly negative for tubercle bacillus but positive for W.B.C. elastic fibers and alveolar epithelial cells. He was discharged on Jan. 21, 1926, condition improved. Diagnosis:—Mitral disease complication with pulmonary infarct. This patient has been followed in tuber-



*Fig. 1. Showed obscurity and density (pulmonary infarct). Proof puncture of same place negative for fluid.*



*Fig. 2. The middle portion of the left lung is occupied by a very opaque and dense area (pulmonary infarction). General accentuation of the linear markings (engorgement of pulmonary vessels).*

culosis clinic since discharge and is reported to have had recurrence of hemoptysis since.

CASE III. Mrs. C.C.K., Chinese, aged 21, entered hospital Feb. 25, 1926 for cough and hemoptysis of 12 days duration. Her husband had pulmonary tuberculosis. She had edema of feet, legs, and arms for five months five years ago. She also had productive cough, anorexia and afternoon fever for five months four years ago. She was treated in our hospital from Nov. 27, 1924 to Dec. 14, 1924 for productive cough, dyspnea and palpitation of heart of three months duration and our record of her last case was:—The physical examination showed that the face was flushed. Heart was enlarged, right border  $3\frac{1}{4}$  cm and left border  $11\frac{1}{2}$  cm from M.S.L. in the 5th I.C.S., P 2 was accentuated and greater than A 2. A loud systolic murmur was heard best at the apex and a double blowing murmur over the pulmonary area. Dullness was percussed out at the right apex of the lung, but no rales were heard. She was improved on discharge, being diagnosed as mitral disease.

About three months ago, the productive cough again started. Hemoptysis of one basinful of blood every day, occurred 12 days before admission, lasted for three days and was followed by blood sputum since.

The physical examination showed a well nourished individual with flushed face and slight edema of feet and hands. Compared with conditions found last time her heart was increased in size; right border  $1\frac{3}{4}$  cm and left border  $1\frac{1}{2}$  cm greater. A presystolic murmur was heard at apex and a loud systolic murmur at the base which transmitted to axilla. P 2 remained accentuated and greater than A 2. Lungs showed dullness, harsh breathing and moist rales in right which extended down to hilus. Rales were also heard in both bases. Liver enlarged five cms. below costal margin. Roentgenologic examination of the chest reports:

“The diaphragm lines and costophrenic angles are clear. The heart is normal. The hilus shadows are increased and contain some calcified areas. The left chest shows an accentuation of the linear markings. The right chest shows marked mottling more dense in the apex.”

Stool and urine were negative. Sputum repeatedly negative for tubercle bacilli. W.B.C. 8,200, hemoglobin 70%. Afternoon fever was ranging from  $37.4$  C to  $38.5$  C, and pulse rate from 74 to 120 per minute. Discharged improved on March 15 1926. Diagnosis pulmonary tuberculosis and mitral disease.

**CASE IV.** Mr. L. K. B., Chinese student, aged 21, admitted March 26, 1926 for treatment of productive cough for half year. Both his father and mother had chronic cough. He had bloody sputum for a few days two years ago. Present illness started about one year ago with palpitation of heart on exertion, edema of legs, and afternoon flushing of face, night sweats. Occasionally, night sweats and productive cough since the onset of illness.

The physical examination showed dullness and few inconstant rales at the left apex of the lungs. Heart was enlarged on both sides. A diastolic thrill was felt at apex. P 2 was accentuated and greater than A 2, a loud presystolic roll was heard at the apex and soft systolic murmur at pulmonary area. Diffuse pleuropericardial rub was felt over the pericardium. Roentgen examination reports:

"The diaphragm lines and costo-phrenic angles are clear. The heart is enlarged to right. The hilus shadows are increased. The linear markings are accentuated. There is an area of increased density on the left side between the third and sixth rib."

Examination of the blood, urine, stool and sputum all were negative: Temperature chart showed occasional afternoon fever ranging from 37:2 C to 38:1 C. Discharged on April 9, 1926. Condition improved. Diagnosis, mitral disease, pericarditis, and questionable pulmonary tuberculosis.

Case I is an example of the most puzzling and common manifestation of mitral disease. On account of the continuous hemorrhage the complete physical examination of the chest is often postponed and the cardiac signs missed.

Case II is more striking. It presents all the symptoms of pulmonary tuberculosis and with persistent rales in the chest. The constant and localized rales at the posterior aspect of the base of the left lung have been recently claimed to be an early and valuable sign of heart disease in the preclinical stage.\*

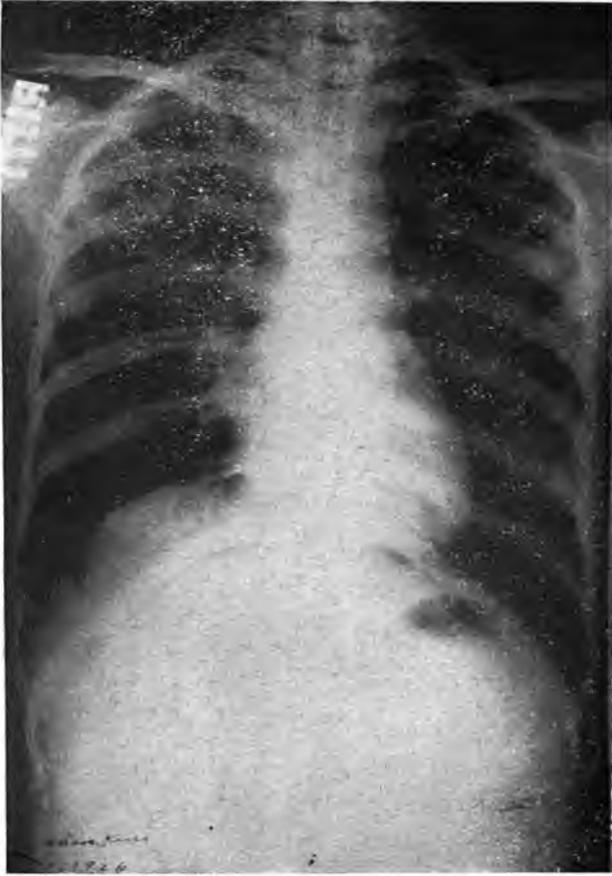
Case III gives a typical picture of mitral disease with decompensation. The physical and roentgenologic findings in the right apex suggest pulmonary tuberculosis rather than infarction.

Case IV gives signs of mitral disease and pericarditis. The dense shadow in the middle portion of left chest may be interpreted as pulmonary infarct or tuberculous lesion.

Frank hemoptysis is said to be very rare in mitral disease. Mackenzie reports profuse hemoptysis in mitral stenosis. The frank

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\*S. Calvin Smith: The preclinical stage of heart disease, J. A. M. A. 86: 1902-1903, June 19, 1926.



*Fig. 3. Very dense tuberculous infiltration in right upper lung. Calcified areas in hilus on both sides.*



*Fig. 4. Increased density in left middle lung ( ? Pulmonary infarction). Heart shadow enlarged to right.*

hemoptysis in mitral disease with pulmonary infarct is probably due to the erosion of the larger pulmonary blood vessels as a result of gangrene or abscess.

The frequent small hemoptysis in uncomplicated mitral disease is due to engorgement of the pulmonary circulation and rupture of the small blood vessels. The bloody expectoration in the mitral disease is an intimate mixture of sputum and the blood simulating pure blood, so much so, that it has actually been mistaken for frank hemoptysis as illustrated by cases I and II. The appearance of the bloody sputum in mitral disease persists for a considerable length of time, from months to years and that in pulmonary tuberculosis usually lasts only a few days or weeks. The presence of elastic fibers in the sputum means the destructive process in the lungs which usually occurs in the pulmonary infarct of mitral disease but is not present in early pulmonary tuberculosis.

The value of X-ray examination of the chest in differential diagnosis of these two conditions is great as shown in these cases. In pulmonary tuberculosis the chest plate reveals the lesion usually in the upper chest which infiltrates and extends to the periphery of the lung and the heart is of normal shape and size. In mitral disease the signs are apt to be in the bases of the lungs. The pulmonary infarct is usually shown as a well outlined and localized area of increased density in the lower part of the lung. The engorgement of the pulmonary vessels is shown by the accentuation of the linear markings in the lungs. The heart shadow is usually enlarged, especially to right.

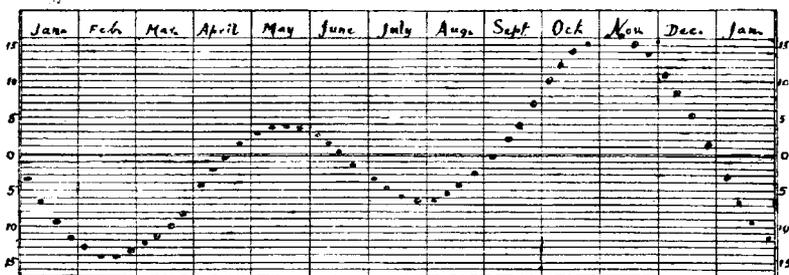
#### CONCLUSIONS :

1. A high percentage of mitral disease was observed among the patients who attended the tuberculosis clinic of the Hunan-Ya Hospital.
2. Cases are presented to show the similarity of symptoms of early mitral disease and incipient pulmonary tuberculosis.
3. The difficulties of diagnosis are discussed.
4. The character of hemoptysis and sputum in mitral disease with pulmonary infarct has been emphasized.
5. The importance of the X-ray in the diagnosis is brought out by these cases.

**Hospital Technology Section**

DEVOTED TO THE GENERAL INTERESTS AND PRACTICAL  
NEEDS OF THE SMALLER HOSPITALS

*Edited by the Institute of Hospital Technology*

**SUN DIALS**

Graph showing by minutes (horizontal lines) at weekly intervals (1st, 8th, 15th, and 22nd, of each month the deviation of apparent or Sun time from mean, or Clock time during 1927. Above the line Sun time is faster, below it is slower than the Clock.

Each January we propose to publish a graphic chart showing the deviation of Solar time from mean, or clock time. By means of it we can obtain accurate time wherever we are, and with the simplest of apparatus,—the shadow of a string, or the corner of a building. Details of making and setting up a sun dial were published in this Section of the Journal for May 1926. Reprints can be obtained from the Mission Book Co.

The I. H. T. Secretary will also send an accurate plumb bob on loan to any member of the C. M. A. on request. Once the line of the true North has been laid out, it is there for all time.

**I. H. T. INQUIRY COLUMN**

*To the I. H. T.*—Referring to your very interesting reply in the "Journal" of March, 1927, to the inquiry for treatment of acute Koch-Weeks infection, your Respondent advised the bandage for complicating corneal ulcers. Were we not taught at School to eschew bandages in the presence of conjunctival infections?

H. G.

**Answer;**—It is our custom in corneal ulcers where there is no active conjunctival infection, or where the infection is not too virulent, to apply a firm dressing. This does not imply too great a degree of pressure, but it does imply a dressing that will not move, and that will prevent the opening of the eyes with the consequent irritation caused by the rubbing of a thickened roughened conjunctiva over the ulcer. Naturally some judgement must be shown, and eyes with a severe conjunctival infection cannot be so dressed until the conjunctival infection is somewhat under control. It also implies that the dressings done during the day by people other than the doctor are done by persons properly instructed in the cleansing and management of the condition under treatment.

R. A. P.

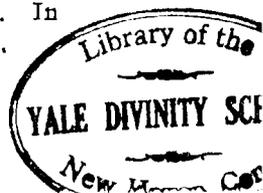
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In the Journal of March, 1927, you discussed an acute Conjunctivitis. I notice that your Inquirer asked about cases which he diagnosed as "Spring Catarrh"; your reply discusses a Koch-Weeks infection. But surely they are not the same thing?

**Answer,**—Vernal Conjunctivitis, or "Spring Catarrh,"—both names misleading,—is a conjunctival condition occurring usually in the Spring, reaching its height during the Summer, and moderating in the Autumn. It is characterized by photophobia, stinging pain, considerable mucous secretion, the formation of flat, firm granulations in the papebral conjunctiva, and a tendency to form a zone of hypertrophy around the limbus. It can occur any time, but usually follows the above sequence. The majority of patients are young males. The granulations are frequently covered by a milky film which if present is of diagnostic value. Eosinophiles are usually abundant in the secretion, especially following the instillation of several drops of 5% Dionin. May be complicated with Trachoma. It tends to be self limited over a period of seven or eight years. It sometimes causes corneal opacities. It runs a subacute and chronic course. Vernal Conjunctivitis is not frequent in China. In Nanking I do not see over a score of well-defined cases in a year.

Differential diagnosis: from Trachoma by the flattened appearance of the firm granulations; by the absence of infiltration, and of Pannus; by the history of seasonal recurrence; and by the usual abundance of Eosinophiles in the secretion.

A Koch-weeks conjunctivitis is diagnosed by its abundant secretion, its diffuse inflammation, and by the presence of the distinctive organism. Swelling is usually marked in well developed cases. Its onset is acute and sub-conjunctival haemorrhages are common. In China Corneal ulcers are common when associated with Trachoma.



In the Morax-Axenfeld, or Angular Coniunctivitis, the lesion tends to be localised to the lid margins, and to exposed parts of the Conjunctiva. Occasionally it is associated with Corneal ulcers. It is frequent during dusty weather, and in Summer. It is always endemic in China. The distinctive organism is to be found.

Of them all, Trachoma is practically the only condition hard to distinguish from Vernal Coniunctivitis. Follicular Coniunctivitis, and Phlyctenular Coniunctivitis should be borne in mind, but they are easily distinguished.

The treatment of Vernal Coniunctivitis is largely symptomatic. Dark glasses, Zinc Sulphate  $\frac{1}{4}\%$ , Boroglyceride, Adrenaline (1 in 10000), with Holocaine (1%), aqueous Ichthyol (2%) are all recommended. Adrenaline Chloride and Thiosinamine ointment (5%) have given me my best results. Almost equally good is Fibrolysin, used either alone or with Silver Nitrate ( $\frac{1}{4}\%$ ). In the milder forms painting the lids after cocainization with Zinc Chloride (10%), and then washing with Saline is very efficacious, although heroic treatment.

R. A. P.

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*To the I. H. T.*—For eye irrigations in the O. P. D. should the patient lie down, or sit in a head-rest chair? Admittedly the former is easier and more comfortable, but under O. P. D. conditions does not table work seem slow and unnecessarily obstructive, unless there is an unusual amount of unused space about? Can you tell me what is the standard practice in good hospitals?

S. J. H.

Answer,—You will be perfectly right in treating ordinary eye irrigations in a head-rest chair with a good lean-back. There is no point in having these patients lie down. In the P. U. M. C. we use such a chair for the great majority of our cases, though in the case of children, or of refractory adults, it is much easier to handle them lying down. In either case, one must exercise care not to flush directly upon the cornea in cases where the epithelium might easily be denuded. On the other hand, to secure a thorough irrigation, one should always have the patient look in various directions while the eye is being flushed.

H. J. H.

## Editorials

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1928

One of the most difficult tasks of recent years that has fallen to the Editor of the Journal has been the writing of an Editorial for the first issue of the New Year, and unfortunately the present one is no exception.

The year that is past has been the darkest one for the hospitals in China in the memory of any living man. We say this advisedly for the Boxer year with all its horrors was but an isolated instance of mob psychology worked on by a few evil and designing men, whereas the past year has seemed to reveal a systematic attempt to destroy all agencies that sought to relieve suffering, help the weak and restore to health the physically and spiritually diseased.

But while this has been the pitiful story of the past year it is not the whole story nor must it be hastily supposed that it implies a future as dark as the past has certainly been.

The powers of evil have had their day and emphatically we would maintain that they have failed.

In all the sea of darkness of the past year islands of light have remained apparently unsubmersible and now there comes definite promise of a brighter day, even if the dawn breaks but slowly. While it is true that the position is still uncertain in some directions and still quite closed in others, the fact remains that medical superintendents are being able to return to their hospitals in steadily increasing numbers, that provinces like Szechuen are definitely reopening, despite the difficulties that the journey to them may entail and that the prospects are far from being as dark as they were.

Another encouraging fact is that wherever the doctors have been able to return they have been received with open arms by the people and, except in a few cases, no long period of rebuilding work that has been destroyed will be required.

To us one of the most consoling things in the review of the position is the general solidarity of the medical profession in China. While there may be isolated exceptions to this statement the fact remains that the medical profession in China while standing for Nationalism in the best and truest sense of the word, has not been carried away by the excesses that have too often been condoned under this name. We, foreigners and Chinese alike, stand definitely for relief of suffering, healing of disease, saving of life and prevention of sickness without regard to race or class and for all knowledge and help that may lead us to this from whatever source it may come.

## DR. ARTHUR WOO

We have much pleasure in publishing a short appreciation of our latest President. Dr. Arthur Woo is now Acting-President since the departure of Dr. Henry Fowler. We are glad to be able to reproduce such an excellent photograph of Dr. Woo and to assure him of the congratulations of all the Members in assuming this Office.

## THE CHINA MEDICAL ASSOCIATION

It is sometimes hinted that the time of usefulness of our Association is fast drawing to a close, if it has not already arrived. We maintain that this can only be said by those who have never given the matter a serious thought.

The fact of the splendid growth of the National Association is one in which we unfeignedly rejoice. The land is before them and our hope for them is that they go in and possess it to a greater extent than they have ever done.

But this very fact, which is nothing but a matter for congratulation, is also a most cogent reason for continued and increasing activity of an International Association such as ours.

We have referred in a preceding note to the solidarity of the medical profession here in China. Such a spirit can only be maintained by a true Internationalism. There is no nation on earth that can afford to stand alone and there is no nation, least of all the Chinese, but can make a contribution that it alone can give to the knowledge and progress of Medicine as a whole.

Here is the very *raison d'être* of the China Medical Association. No Chinese Medical Association can at this present time afford to destroy its national appeal by a wholesale admission of foreigners to its membership. While on the other hand the profession in China can no more than in other lands afford to neglect the contributions to science that come from abroad. The China Medical Association then becomes the *liaison* agent between the profession in China and the profession elsewhere.

Doubtless the time will come when the National Association becomes so large that it will be able to afford to take into its ranks the professional men out here of other nations and then our Association will have done its work and gracefully pass away. On the other hand our own Association will by that time be so largely Chinese that there will be little to regret in its demise as a separate organisation.

If these remarks are a correct statement of the position, as we believe they are, the China Medical Association has still a position to uphold and a splendid work to do. That it may accomplish this it

should contain every foreign physician in China and a large proportion of English-speaking Chinese physicians. This is our aim and we ask the Members to help us individually in carrying it out by getting as many as possible to join of both these classes.

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#### THE ASSOCIATION SEAL

The desirability of the Association possessing a characteristic seal has been before the Executive Committee for at least a couple of years. A suitable design has, however, not been forthcoming and such as were sent in did not prove acceptable.

Through the kind offices of Dr. Cormack of Peking, Mr. William Grant, Chief of the Government Bureau of Engraving, Peking, was interested in the matter and the hearty thanks of the Association are due to him for the design which has now been adopted, and which appears as the Frontispiece of this issue.

Even after the design had been secured some question arose as to whether the ancient sign of the dragon would find favour at this time. The matter was referred to leading Chinese physicians in Peking and Shanghai, and only after their approval had been given was the seal finally adopted.

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#### THE CHINA MEDICAL JOURNAL

The year that has passed has been one of special difficulty in regard to the publication of the Journal. This has been mainly due to strike and labour troubles which entailed printing the Journal wherever it could be done and on more than one occasion part of it at one establishment and part at another. It is gratifying in view of this to be able to record that no issue has had to be omitted and though by the summer we were no less than six weeks behind on the monthly issue, we have since been able to completely make up the lost time.

As far as publication is concerned we are now in smooth water and we look forward to posting the Journal to our readers punctually on the 15th of each month.

With regard to material the Journal is not in quite such a happy position. The months that follow a Biennial Conference are happy ones for the Editor, as far as material goes, though he has to run the gauntlet of a number of attacks from those who feel that their contributions are unduly delayed. But the months preceding a Conference are apt to be lean ones as many contributors desire to keep their papers for the coming meetings. This of course is quite natural but it is rather rough on the Editor on whom falls the responsibility of the Journal from month to month.

This is the Editor's position at the moment as regards material for 1928, and it is made more serious this year by the absence of so many contributors who have been driven from their hospitals by the political troubles.

An appeal, which we sincerely trust will be taken to heart by the Members is therefore made for the following :

1. Original Articles on subjects of general medical interest.
2. Articles on Public Health Problems in China for the March Public Health Issue. We have one remarkably interesting one in hand from a Chinese contributor in the South, but we want several more telling us what is planned and what is doing in the way of Public Health Work in China to-day.
3. Papers dealing with the problem of the Opium addict. With the rapid increase again of opium smoking and morphinism in China, this is becoming an important problem. The Anti-Opium Society would like to have more information on simple plans for opium refuges, and for systematic treatment of addicts. We should be glad if some of our Members with considerable experience along these lines would let us have papers for publication on these subjects and we hope it may be possible eventually to combine some of these in a small pamphlet for use by those who are starting and carrying on this work.
4. Short clinical papers, no matter how short, describing interesting and rare cases.
5. Photographs for reproduction of exceptional and instructive cases. The problem of illustrations is not an easy one. No effort has been spared to get the best reproduction possible of the photographs received, but we are still far from satisfied with the results. In some ways this is for the moment unavoidable. The best paper for reproduction is not available in Shanghai and the Editor hopes, on his next visit home to look into this matter. Also the photographs received too often could not be produced satisfactorily by any possible process. Needless to point out that if the originals are poor, reproductions cannot possibly be good.

With regard to photographs for reproduction, we notice that the same complaint has been dealt with lately in the *British Medical Journal* and the advice there given is worth reprinting. It reads as follows :

Pen-and-ink drawings that can be reproduced in line blocks are easily dealt with. The root of the difficulty is that nowadays most of the pictures submitted are photographs, and that they are not taken with a view to reproduction on a rapid press, as are those produced by journalist-photographers for the daily press. The situation was discussed again at the last meeting of the

Journal Committee, when the opinion was expressed that some good might be done if an appeal were made to contributors to realize that some of the difficulties in the way of satisfactory reproduction of photographs in the JOURNAL can only be overcome if they will give their assistance.

Many of the illustrations sent for reproduction are very far from being suitable. Snapshots taken with a hand camera are a very severe test of a photographer's skill; few amateurs can in this way produce a print suitable for reproduction on the printed page or even on special art paper. For photographs of patients it is best to use a portrait lens. Usually it is preferable to employ a photographer accustomed to portrait work. Care should be taken that the subject is properly lighted and shown against a flat uniform background. The whole effect of photography is in the contrast between the black and white. In most cases a smoothly stretched sheet, white or grey, gives the best contrast; an ordinary wall with fittings in or upon it, or a curtain hanging in folds, are most unsuitable.

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#### THE INSTITUTE OF HOSPITAL TECHNOLOGY

More and more do we feel the necessity of re-establishing the Institute of Hospital Technology on a firm basis if the need of the smaller hospitals for technicians is to be met, and the removal of some of the burden of work from the shoulders of isolated physicians is to be secured. Recently we issued an Appeal on behalf of the Institute, printed in the Journal of August 1927. Copies of this Appeal were sent to the leading Mission Boards at home.

Considerable interest has been aroused, but the same response has come to this Appeal both from America and England:—"Convince your Doctors on the Field and let them bring pressure to bear on their Home Boards. This is the only way to ensure support from Home."

Now we believe that the Doctors on the Field are convinced, and a few of them,—very few—have been trying to influence their Committees out here and their Boards at Home. But united effort is what we want. We want to know that every missionary physician is pressing the matter on the consideration of his Board. Copies of the Appeal for Fuller Support are still to be had free from the Offices of the Association, and we trust that full use will be made of these.

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#### DR. ALEXANDER LYALL

We publish with very great pleasure an appreciation of our former President in the Section devoted to Association news in this issue. We apologise for the belated appearance of this some time after Dr. Lyall has left China. The reason for the delay has been the uncertainty whether our veteran colleague would not after all return to the land where he had spent 45 years of service. Dr. Lyall has now definitely retired and the best wishes of the Association will go with him in his well earned rest.

## China Medical Association Section

Our attention has been called to the fact that the pages giving details of the Association appearing as they do in the advertising section of the Journal are lost in the binding of the completed volume with the result that there is no permanent annual record of the Committees and Officers. It has been suggested that the more important details on these pages should be inserted once a year in the letter press of the Journal itself, and we propose to do this annually in the January issue.

### CHINA MEDICAL ASSOCIATION

President...	... HENRY FOWLER, L.R.C.P. & S., E. ...	
Acting President	... ARTHUR W. WOO, M.B., B.S., LOND.	Hongkong
Secretary-Treasurer	... JAMES L. MAXWELL, M.D. ...	Shanghai

### PAST PRESIDENTS OF THE ASSOCIATION

*Kerr, J. G., M.D., LL.D. ...	1887-1889
*Boone, H. W., M.D. ...	1889-1890
Lyall, A., M.B., C.M. ...	1890-1892
*Douthwaite, A. W., M.D. ...	1898-1895
Atterbury, B. C., M.D. ...	1895-1897
*Whitney, H. T., M.D. ...	1897-1899
Beebe, R. C., M.D. ...	1899-1901
*Hodge, S. R., M.R.C.S., L.R.C.P. ...	1901-1903
*Neal, J. B., M.D. ...	1903-1905
Christie, D., C.M.G., F.R.C.P. & S.E. ...	1905-1907
*Stuart, G. A., M.D. ...	1907-1910
Cousland, P. B., M.B., C.M., LL.D. ...	1910-1913
Main, D. D., F.R.C.P. & S.E. ...	1913-1915
Venable, W. H., M.D. ...	1915-1917
*Davenport, C. J., F.R.C.S. ...	1917-1920
Johuson, C. F., M.D. ...	1920-1923
Kirk, J., M.B., Ch.B., F.R.C.S.E. ...	1923-1925
Cochran, S., M.D. ...	1925-1926

### COMMITTEES AND COUNCILS

*Executive Committee.*—Drs. Arthur Woo and Maxwell, *ex-officio*.

*Elected Members.*—Drs. Earle, E. S. Tyau, Morris, Iva M. Miller, Way Sung New, Gordon Thompson, R. C. Robertson, H. W. Miller.

*Council of Missionary Division.*—Members of the Missionary Division sitting on the Executive Committee.

*Council on Publication.*—Drs. Shields (Chairman) Cousland and McAll (Editorial Secretaries) Cormack, Ingle, Gillison, Kiang, Heimburger, Professor Read, and Dr. J. L. Maxwell *ex-officio*.

\*Deceased.

*Council on Medical Education.*—Drs. J. Kirk (Chairman) Earle, Ellerbek, Dunlap, Hutcheson, Khaw, Branch, Shields, (Secretary) E. S. Tyau, W. R. Morse (corresponding member) and J. L. Maxwell, *ex-officio*.

*Council on Hospital Administration.*—Drs. Auld. Hadden, Hutcheson, James, H. B. Taylor, J. Heng Liu, F. C. Yen, Wheeler, and Dr. J. L. Maxwell, *ex-officio*.

*Council on Research.*—Drs. Earle, (Chairman) Anderson, Black, Faust, E. K. S. Lim, Professor Read, and Dr. J. L. Maxwell, *ex-officio*.

*Committee on Hospital Technology.*—Drs. H. B. Taylor (Chairman) G. Hadden (Secretary), J. L. Maxwell, Hutcheson, J. Kirk and Mr. J. Cameron, Misses E. Hope Bell and E. Bowne.

*Joint C. M. A. and N. A. C. Committee.*—Drs. H. O. Chapman, Mary James, Ethel Rowley, Misses Maud Marten, Gladys Hodges, Dr. Agnes Cowan (corresponding member), Dr. J. L. Maxwell, and Miss E. Hope Bell, *ex-officio*.

#### BRANCH ASSOCIATIONS

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Chungking	„	J. H. McCartney	„	.....
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Shanghai	„	H. H. Morris	„	M. B. Sloan
Peking	„	M. Hinkhouse	„	S. H. Liu
South China	„	C. A. Hayes	„	Miriam Bell

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#### CHINA MEDICAL JOURNAL

the official organ of

THE CHINA MEDICAL ASSOCIATION

*Editor:* JAMES L. MAXWELL, M.D.

*Associate Editors.*—Drs E. C. Faust, (*Parasitology*); Davidson Black (*Anatomy and Anthropology*); B. E. Read, (*Pharmacology and Physiology*); A. H. Woods (*Neurology*); L. H. Braafladt (*Pathology*).

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#### MINUTES OF THE EXECUTIVE COMMITTEE

A meeting of the Executive Committee was held in the Association's offices on 25th November, 1927 at 9 a.m.

*Present:*—Drs. Fowler (in chair) Morris, New, Gordon Thompson, Robertson, Tyau and Maxwell.

The meeting was opened with prayer.

*Vacancies on the Committee:*—To fill the vacancies on the Committee the following were appointed:

Dr. A. W. Tucker—as Vice President in place of Dr. Arthur Woo now Acting-President.

Dr. Robertson.

Dr. Harry Miller.

It was noted that Dr. Robertson has been hitherto acting as alternate for Dr. Earle. The Secretary was therefore instructed to write to Dr. Earle asking him to nominate another alternate member.

*Biennial Conference:*—The Secretary reported a number of replies to letters asking the opinion of members with regard to the holding of the next Biennial Conference at China New Year 1929. As all these replies had been in favour of so doing the Committee decided to proceed with arrangements therefor.

The Committee appointed the following as a Conference Committee:—

Dr. James L. Maxwell

Dr. R. C. Robertson

Dr. W. S. New

and a representative from the Shanghai Branch. (Dr. U. K. Koo)  
With power to add to their numbers.

*I. H. T. Letter from Dr. Hadden:*—The Secretary read a letter from Dr. Hadden dealing (1) with the difficulties that he had met in getting action taken on behalf of the I. H. T. in England, (2) with the question of expenses in respect of stopping over in America and Canada on his way out with a view to interesting the Mission Boards in these countries in the work of the I. H. T. After considerable discussion it was agreed:—

1. To ask Dr. Fowler to take up the matter with the Mission Boards in England and with the Advisory Board of Medical Missions.

The Committee further desired to record its opinion that the most satisfactory solution of the problem would be for a Board, or one or two Boards, conjointly, to take over the general responsibility for the organization of the I. H. T. work. The China Medical Association would gladly assist with advice and supervision in regard to courses of study and examinations but the responsibility for the Institute itself did not properly come under the work of this Association.

2. To grant a sum not exceeding \$300 Mex to Dr. Hadden to help with his expenses in America and Canada.

*The Secretary and Outside Activities:*—The Committee granted the Secretary permission to act on the Advisory Committee of the proposed Henry Lester Institute for Medical Research and as Medical Advisor to the Mission to Lepers in China.



*Arthur W. Woo, M. B., B. S., (Lond.) M. R. C. S., L. R. C. P.  
Acting-President, China Medical Association.*

*Dr. Henry Fowler*:—Attention was called to the fact that Dr. Fowler was leaving for England the next day.

The Committee again expressed its very warm appreciation of all the work that Dr. Fowler had done for the Association and wished him Godspeed on his journey.

The Committee further expressed the hope that Dr. Fowler would be willing to act as a corresponding member in England.

The meeting was adjourned at 10.30 a.m.

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**DR. ARTHUR WOO**

The retirement of Dr. Henry Fowler leaves the China Medical Association without a President in China, the duties of the office are therefore assumed by the Vice-President,—Dr. Arthur Woo in accordance with the Constitution of the Association.

Of the Members of the Association of Chinese race few are better known and more justly popular than Dr. Woo, and in the name of all the Members we very heartily welcome him to this important office.

Dr. Arthur Woo was born in Hongkong 39 years ago and received his education in the Diocesan Boy's School there, and later at Middlesex Hospital in London. After a brilliant collegiate career in London Dr. Woo held a number of appointments in English Hospitals, among them being those of Gynecological and Obstetric Tutor, Registrar and Acting Lecturer on Practical Midwifery at the Middlesex Hospital.

On his return to China, Dr. Woo took up work in the Department of Obstetrics and Gynecology at the Peking Union Medical College where for a time he was Associate Professor. He was also Physician Extraordinary to the President of China and Medical Advisor to the Ministries of Foreign Affairs and Communications.

Later Dr. Woo went back to Hongkong where he is now in practice. In December 1923 he was elected President of the Hongkong Chinese Medical Association and is Honorary Secretary of the Hongkong Branch of the National Medical Association.

Dr. Arthur Woo was the Founder and President of the Chinese Students Christian Union for Great Britain and Ireland in 1908 and for a number of subsequent years. In Hongkong Dr. Woo has started a Free Clinic in Aberdeen with the Chinese Mission to the boat population which has proved a growing success.

## DR. ALEXANDER LYALL

Arrived Swatow 1897. Retired 1926.

An Appreciation by a Colleague and Friend.

In the list of past Presidents of the China Medical Association the name of A. Lyall appears in the third place. He was President for the triennium 1890-1892, and as he had already been eleven years on the field his connection with the C. M. M. A. as it then was, goes back to its earliest days.

It is well that we younger workers, who have in so many instances "entered into their labours" should remember with honour and gratitude the lives and work of the veterans in Medical Missionary service.

Dr. Lyall took his medical course at Edinburgh University, graduating in 1876. During his undergraduate course he distinguished himself by gaining first prizes in medicine and surgery, second medals in midwifery and in clinical surgery, in which subject his teacher was the renowned Lister.

After holding posts as House-surgeon, first at the Edinburgh Medical Mission and subsequently at Mildmay Mission Hospital, London, he was appointed a Medical Missionary of the Presbyterian Church of England and arrived in Swatow in 1879.

There he succeeded Dr. William Gauld who had laid the foundations of a promising work, but whom ill health had compelled to retire after one term of service. Dr. Lyall thus succeeded to a medical work that had taken root and begun to develop, but which still had to contend with the many prejudices, distorted and false reports of what happened to patients, and all the profound suspicions that were rife in those early days.

Dr. Lyall would relate that at that time many a Chinese coolie was scared to death to pass along the hospital buildings, which were close to the main road. It was a common occurrence for a group to gather, and then to make a wild dash past this foreign devil establishment of nameless terrors.

However such fears and prejudices had inevitably to give way to skill and kindness such as Dr. Lyall and his Chinese assistants and students showed.

Thus confidence grew, numbers increased from year to year, and the reputation of the Swatow hospital and the doctor spread far and wide.

For many years Dr. Lyall sustained the burden of this growing work without a foreign colleague, then in 1904 Dr. G. Duncan Whyte came to his help and was on the staff of the hospital till his lamented death in November, 1923.

In later years Dr. Lyall had the help of junior colleagues attached to other hospitals in the Swatow field, as occasion required.

The all round ability in things medical which his distinguished undergraduate career showed, continued to characterise him throughout, and the enormous amount of clinical material which passed through his hands during many years, in which he had perforce to do the work of a specialist in practically every department, made of him a most efficient all round exponent of the healing art. His sound judgement and clinical acumen in difficult cases, medical or surgical, were valued highly by younger and less experienced colleagues, and were always ungrudgingly given.

The writer used to admire and envy the sureness of touch and steadiness of hand, that made delicate operations on the eye look so easy, even when the operator had passed his seventieth birthday.

With a reputation so high, his services were frequently sought by patients in Swatow and the surrounding country who were willing to pay for the best Western skill available to them.

Even where the fee offered was not tempting, Dr. Lyall was not one to drive a hard bargain where a sick patient was concerned, and a trip into the country by rail or boat or chair was a welcome change from hospital routine, which he enjoyed.

Besides, the poor in Swatow who could only pay the rickshaw fare, or not even that, received freely of his services as far as time and strength permitted.

For his patients of whatever position and class Dr. Lyall was willing always "to spend and be spent."

After well nigh 47 years of service Swatow has regretfully had to say farewell to one long honoured and esteemed by its people.

The gratitude of multitudes who benefited by his kindness and skill follow him into his retirement.

The Chinese Chamber of Commerce showed its appreciation by presenting Dr. Lyall with a gold medal on his leaving, and in other ways evidence was forthcoming of the high place he had gained in the affection and esteem of all classes.

Dr. Lyall was one of the best types of the medical missionary whose devotion to the saving of the Chinese, body and soul, was undoubtedly sustained by his consecration to Him Who was the supreme Medical Missionary.

A. Wight.

**Missionary Section****ON THE FUTURE OF THE MISSION HOSPITAL IN CHINA**

P. B. PRICE, M.D. TAICHOW, KU.

Along with many other institutions in China the Mission Hospital has been very sick. The crisis seems to be at hand. What its fate will be no one can predict certainly. But in the present distressing situation one might expect the doctor to be peculiarly fitted, both by training and by experience, to gather data quietly and painstakingly, to sift evidence with judgement and discrimination, to discount hysteria and hearsay, to reach a shrewd diagnosis after careful thought, and to decide upon a promising program for the future. He could not be dogmatic, of course, for he is dealing with factors more uncertain even than infection, immunity, and therapeutic action (and besides, being a true scientist, he could not be dogmatic anyhow); nevertheless, it is a time for fundamental and courageous thinking.

1. *What are to be the purposes of the future Mission Hospital?*

In the past they have been: evangelism, care of the sick, training of internes and nurses, public health education, research, and the introduction into China of a modern medical system. Perhaps few hospitals have aimed at all of these, but all have had some of them to some degree; and the work and the influence of any hospital have been determined largely by which were put first—in practice, not in avowal. Is the Mission Hospital of the future to have some other function? or a shift in emphasis? If so, what? In any case, should not any policy be accepted or rejected according as it gives promise of accomplishing the purpose for which the mission hospitals exist?

2. Allied to the first question is this: *What is the ultimate goal of the Mission Hospital?* Upon the answer to this question hangs the whole policy for the future.

It has been asserted, with increasing frequency of late, that the hope and purpose of the Missions is to make their hospitals "all Chinese" as soon as feasible. This is an idea that has grown rapidly in the soil of sentimentality, and in the balmy atmosphere of Chinese approval. The time has come to look critically at the thought that lies behind this assertion. Is it because missionary doctors and nurses are eager to be relieved of this opportunity for service to God and to the Chinese? Surely not. Is it because the purposes of the Mission Hospital (evangelism, care of the sick, etc.) can be more surely and effectively realised under Chinese control and administration? One must question it seriously, at least for the present, and even for the future, if evangelism is always to be given a major emphasis. The Mission Hospital is a unique institution. Its like is not to be found in

Europe or America. It is made possible by the dominating personality of a missionary doctor or nurse, who is literally one in a thousand, picked by Mission Boards for the rare combination of ability, character, and missionary zeal. Can one hope that Chinese doctors and nurses of like calibre and spirit will be produced in any larger proportions? It would inevitably follow that most of the mission hospitals would fall into hands that could not keep them up even to their present standards and ideals. Again, is the proposition that mission hospitals be made "all Chinese" as soon as possible born of the feeling that medical missions should make some contribution to China in her struggle upwards, and that the encouragement which such a step would give to some of her leaders would more than compensate for any loss in standards, or service, or Christian influence? What would the Christ do, were He in our place—He Who avoided politics, refused to lead or even discuss revolution, Who utterly disregarded wealth or position or political power, Who catered to no one, but Who loved the common people best, and spent His life seeking and saving the lost? Or, again, is it because we feel that the best thing that medical missions can do for China today is to develop an independent, reproductive medical system, and that therefore the Chinese should be given the stimulus of responsibility and leadership?

The answer to this last question entails another, about which there has been much confused thinking. To whom are the hospitals to be given? To no local group, surely, for such groups are liable to sudden changes in personnel, and there would be too much tendency for hospitals to degenerate into private and mercenary enterprises. Nor to Church Bodies, for they should be founders, not directors of hospitals. The Church has problems and responsibilities enough of her own at present. To Boards of Directors or Trustees, possibly; but then worthy and interested trustees are not numerous; and after all they are trustees, not owners; and anyone who has had experience in hospital administration (in the U. S. at least) realizes that in actual practice the relationship of such boards to hospitals is largely financial. But, even granting that satisfactory Boards could be found, and the hospitals be handed over to them, would that solve the original problem of developing an independent and reproductive medical system in China? Is it not rather the native doctors and graduate nurses who should receive the stimulus?

Moreover, it is a moot question whether such a disposal of mission hospital plants is the best and most fruitful investment of money contributed by the Home Church for purely missionary purposes. Would the missionary enterprise be further advanced by the ultimate sale, rather, of the Mission Hospital and its property, and the reinvestment of the funds in other forms of missionary work, in China if possible, or in some other country, if not?

3. Now is the time to *evaluate again the relative merits of the slow natural development of medical standards, and the quick adoption of foreign standards.*

Seventy five years ago Europe and America were well filled with general practitioners, turned out, after a year or two of study, from innumerable low-grade medical schools, which were staffed by a few successful and busy physicians. The service of these practitioners to their country and communities is beyond praise. Medical standards gradually rose, however, due in part to the few better schools and hospitals, but due chiefly to competition of growing numbers. Then came the small private hospitals and asylums. It is only within recent years that the development of specialties brought in its wake the large modern highly-organized hospital. And the West is only just entering the next stage—preventive medicine. This is the normal, the evolutionary process.

It is only natural that the Westerner, trained in this modern intricate organization, should try on coming to China to establish hospitals and schools similar to those in which he trained. He could not do his best work otherwise. But it does not follow that it is the best thing for China to start without a background at this late stage, or for the missionary doctor to try with this single policy, and by artificial standards, to force upon an unready people a highly developed medical system. Perhaps the choice will not be ours, and, as with the government, the tedious evolutionary process will be inevitable. Mission medical schools have done an inestimable service already, but with many of their graduates finding their way into the port cities, it will be many a weary year before the needs of China's innumerable sick will be met.

One cannot but wonder whether the Mission Hospital might not make a tremendous contribution here. If, for example, a two year course in practical general medicine and minor surgery, and in the fundamentals of hygiene, could be offered to Chinese men, with some special degree and title (not M.D. and Doctor), is it not possible that two or three thousand such practitioners could be sent each year from the 300 mission hospitals, to serve their countrymen just as truly, and mayhap just as effectively, as their more highly trained brothers? And the day would come when China's medical standards would rise spontaneously because of competition and demand.\*

4. One final question: *To what extent should one's policy be guided by expediency?*

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\*This is no new suggestion, It has had prolonged consideration by the Council on Medical Education and has been discussed at more than one Conference. While its advantages are recognised the problems in the way of the control of partially educated practitioners have so far been considered insuperable.—Editor.

**Current Medical Literature****THE APPROACH TO SURGERY**

Sir BERKELEY MOYNIHAN, Bt., M.S.,  
President of the Royal College of Surgeons of England

There is no doubt that a change in the training of the surgeon is imminent, and is certainly overdue. What should be the approach to surgery? It has long been the custom for those waiting to obtain a post on the surgical staff of a hospital to spend months or years in teaching anatomy. And what anatomy have they been compelled to teach? "Descriptive anatomy," the bare record of the physical characters of the various structures of the human body. Students, in accord with modern custom, must be taught the origin and insertion of muscles; the origin, course, branches, and destiny of nerves; the source, divisions, and direction of vessels and the like—a dull catalogue of dead things. For descriptive anatomy has in all countries of the world for a century been divorced from functional anatomy. Sir Arthur Keith has told the story of this lamentable severance. The early English anatomists, from William Harvey onwards, were not content merely to say in words what any man could see with his own eyes. They were deeply concerned not only with the appearance of parts, but with the meaning attached to structure. They desired to know not only how organs of the body were constituted, but why they were so made. Their interest was engaged by the function no less than by form. John Hunter was intensely occupied with dissection; hardly a day passed without his spending many hours in studying the anatomy of parts in man, and in any animals whose bodies he could beg, borrow or steal. But he sought to know not merely what and where the various structures were, but even more the function they fulfilled. For him, as Keith says, "it was not enough to recall that the wall of the aorta was twice as thick as that of the pulmonary artery, or that the walls of some veins were thick, and of others thin; he immediately set to work to find out the significance of these facts; he appealed to comparative anatomy, to embryology, to pathology, and experiment for an explanation." In February next we celebrate the 200th anniversary of John Hunter's birth, and we hope then to display Hunter's own handiwork in such manner as to show the variety of his intellectual appetite and his unsurpassed skill in dissection. But dissection was always a search for the reasons of the actions of parts, not merely for their structure.

How, then, did anatomy go astray? Keith rightly traces the catastrophe to the influence of France and to the delightful gifts of our

Gallic colleagues for systematic and logical thought with orderly and luciferous expression. It seems that the determining influence was that of Winslow (1669-1760), professor of anatomy in Paris. His teaching, accounted the best in Europe, was eloquent, formal, precise. "Whilst merely conveying to his hearers or readers what they might see with their own eyes at a glance, he left them with the pleasant impression that they were drinking at the very fountain-head of pure knowledge." He purposely abstained from attempting to explain the meanings of the structures he described, and in doing so impoverished the study of anatomy. The standard set by him was universally followed, and was to find its highest expression in one of his successors—Bichat (1771-1802). At the time when I became a student, forty-four years ago to-day, we were taught anatomy as we should be taught the plan of a city, learning the names of houses, of main streets, of their branches and turnings; by whatever gate we entered we thus learned to find our way about. But to the people who lived in the city, their industries, their way of life, the part they filled in the community, we were hardly expected to give a thought. For all we knew the city might be dead.

But all my life I have wished that my training had been different. Were my days to come again, I should, after leaving examinations behind, spend the time necessary to make an adequate knowledge of human anatomy my permanent possession and should then escape to experimental research and, in a community of likeminded people, endeavour to train myself for the high destiny of a surgeon, the one man who may engage in direct research. My time would be spent in the laboratory where a youth of plastic mind may learn the methods of approach to new problems or to new extensions of old problems; where old knowledge is merely an impulse to the search for new; where intellectual dissatisfaction is victor over narrow complacencies; where the religion of research inspires him and equips him for his work in the days to come. If surgery is to be something more than a wonderful craft, if it is to be the instrument of research which I believe it to have been, and to be destined to be in the future, those who practise it must have their minds shaped and strengthened by conflict with unsettled problems, not cramped and sterilized by monotonous exercise within a narrow province of static knowledge.

Their minds must be trained in the laboratory, in analogical research, so that they may be more effectively exercised both in the operation theatre and in the wards upon direct research; not, I need hardly say, to neglect of the dissecting-room, but to its relegation to a subordinate position. The comradeship of laboratory workers and clinicians should be intimate and unbroken. The scientist at work in

the laboratory can never reap the full reward of his lonely researches without close and loyal collaboration with the clinician. Nor can those who serve the same cause in a different atmosphere give to their patients the best aid of medicine and surgery without the help of the scientist. The training of the surgeon must not only allow, it must urge, his mind to stray beyond the hard boundaries of old knowledge, over the edge of firm beliefs, into wide territories as yet unexplored and even undivined. In this way only is there escape from the danger which besets the surgeon in the future, the peril of a facile automatism. In this way may the physiologist be brought back from his vagrancies and encouraged to realize that his science best fulfils its destiny when it is applied to the understanding of the functions, normal and aberrant, of the organs of man. It is a delight to me to see that a few of the younger surgeons in this country are taking the path which I should follow if I were on the threshold of a surgical career.

*B.M.J. October 8, 1927*

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**TRANSPLANTATION OF THE URETERS INTO THE BOWEL  
TO SECURE SPHINCTERIC URINARY CONTROL IN  
INCURABLE VESICOVAGINAL FISTULA**

REUBEN PETERSON, M.D., ANN ARBOR, MICHIGAN

Occasionally a vesicovaginal fistula is encountered which cannot be repaired by a plastic operation or a series of such operations. Such cases occur in women who have been terribly mistreated at their confinements. Much of the anterior wall of the bladder has been torn away by instruments or has sloughed away after their use. The bladder with a defective vesicovaginal septum is fixed in the pelvis by adhesions due to infection. Not infrequently it is impossible to locate the cervix amid the adhesions. The fixed uterus can be made out by abdominorectal examination, but the external os is not visible although present, as proved by the passage of menstrual blood.

Every failure to close such vesicovaginal fistulas makes the scar tissue denser and more rigid and increases the chances of failure at the next attempt at closure. The final result in such cases is perhaps to reduce the size of the fistula but to leave the patient dissatisfied and complaining because of the constant dribbling of urine.

Another and even worse variety of vesicovaginal fistula is where the vesical sphincter and adjacent portions of the urethra are absent. Such a condition can result from extensive obstetric trauma, subsequent infection and sloughing or from malignant disease of the urethra necessitating removal of the entire duct. Even where an urethra has

been reconstructed, usually after a series of operations, the patient is dissatisfied since sphincteric bladder control can never be supplied once it is completely absent. With such a reconstructed urethra the bladder, after filling to a certain level, overflows, being especially troublesome when the woman is on her feet.

With such conditions present it is but natural for the surgeon to consider whether the urinary stream cannot be diverted into the lower bowel and the passage of urine controlled by the anal sphincter. Obviously this can be done in two ways, one by severing the ureters from the bladder and anastomosing them with the gut, the other by making an additional distulous opening connecting vagina and rectum and closing the introitus.

In 1900 I gave to the Society the results of experimental work on dogs in an article entitled *Anastomosis of the Ureters with the Intestine*. At that time I had no opportunity to operate upon human beings, and I doubt very much if I would have done so, feeling as I did about the dangers of ascending renal infection.

As far as I could judge then from my experimental work and from a study of the literature, when severed ureters were implanted in the bowel, ascending renal infection always resulted, and inasmuch as it was impossible to determine in advance the extent of such infection I did not consider the operation justifiable. However, while the chance of ascending renal infection cannot be denied after transplantation into the bowel of the ureters with intact ureteral orifices, the infection is, as a rule, of such a type that the chances of the individual's overcoming it are good, hence such operations are justifiable.

While I still believe that the experimental and clinical evidence is in favor of ascending renal infection where the cut ureter is implanted in the bowel, I think now that my former conclusions were incorrect to some extent. A great deal of the clinical evidence was based upon cases where the ureters and possibly the kidneys were infected prior to the transplantation. Infection of the ureters and kidneys was quite sure to follow the transplantation of such ureters. Experimentally, stricture of the ureter at its entrance to the gut was invariably followed by hydroureter and severe pyelonephritis. In extrophy of the bladder the ureters and renal pelves are damaged in a large proportion of cases. This may occur quite early in life. A majority of patients with extrophy of the bladder die before the age of twenty from kidney infection.

Under such circumstances I felt justified in transplanting the severed ureters in the following two cases of incurable vesicovaginal fistula.

*Here follows the account of a case from which the description of the operation and its results is taken.*

On February 18, 1926 with the assistance of Dr. Carl W. Eberbach to whom I am greatly indebted for aid in this and the other case to be reported, an extraperitoneal anastomosis of the right ureter with the sigmoid was performed with the following technic as briefly described as possible :

An incision was made from just above the symphysis upward nearly to the umbilicus and one inch and a half from the anterior superior iliac spine. The oblique muscles were severed by a long gridiron incision and the peritoneum exposed and pushed inward. The ureter was readily located, separated from the peritoneum, the latter incised longitudinally low down for two inches, the sigmoid located with intestinal forceps, brought into view through the peritoneal slit and secured in place by a few interrupted catgut sutures. The ureter was loosened down to the bladder, where it was clamped, the lower end being tied with catgut. An incision one and one half inches in length was made in the longitudinal band of the sigmoid through the serosa and muscles down to the mucosa. By careful dissection the incised intestinal wall was loosened from the mucosa one-half inch on either side. The end of the ureter was split for one-quarter of an inch and the ureteral wall opposite the slit was perforated by a chromic catgut suture. A curved needle on each end of the suture was passed through a small incision in the lower part of the mucosa and through the gut wall one inch from the stab wound. The ureter was then drawn into the gut slightly more than an inch and held firmly in place when the two ends of the suture were tied. The muscle and serosal coats were brought over the ureter and held in place by two layers of interrupted chromic Lembert catgut sutures. No sutures penetrated the wall of the ureter. A soft rubber drain was placed at the bottom of the wound which was closed in layers.

The patient made a good recovery; the wound healed well. She began passing urine per rectum in about thirty-six hours and was able to control it perfectly. Repeated examinations of the urine, drawn from the rectum and filtered, showed no albumin, casts, or signs of kidney infection.

The left ureter was transplanted into the sigmoid by a similar technic April 13, 1926, the patient in the interval having returned to her home. The wound healed well and convalescence was uninterrupted. She is able to retain her urine for four or five hours and does not have to get up at night.

She returned to the hospital for examination March 30, 1927, thirteen months after the last ureter was transplanted. She is pleased at the result of the operation since she is able to retain her urine longer than patients with normal bladders, at times as long as eight hours, and she does not get up at night. Her bowels move once a day. There are no signs of kidney infection. Pelvic examination reveals a vesicovaginal fistula an inch and a half above the introitus which admits the forefinger with difficulty. The cervix is buried in adhesions and cannot be felt or seen although the patient menstruates normally. She asks that something be done to the strictured vagina so that coitus may be rendered possible.

#### COMMENT

I am convinced that the extraperitoneal is to be preferred to the intraabdominal route. No matter how careful the technic of the operation, something is liable to go wrong because it is not like ordinary intestinal surgery where accurate, tight approximation can and should be made. If the stab wound is too closely approximated to the ureter, hydroureter and hydronephrosis with ascending infection will result. This is illustrated by a recent case (to be reported in detail later) where just this condition resulted, necessitating removal of the right kidney.

If there be escape of urine or feces around the opening through the mucosa, the patient will succumb unless the operation has been performed extraperitoneally. Technically it is not more difficult since the ureters are readily exposed and easily transplanted.

I would not desire to expose the patient to the additional risk of transplanting both ureters at the same operation. When this is done you are burning your bridges behind you and something may go wrong.

What will happen to women who have had the ureters transplanted in case of pregnancy? Although not reported I am given to understand that one of Charles Mayo's cases went to full term after this operation and was delivered safely of twins. Evidently the dangers of pregnancy will depend upon how much if any renal infection may be present as a result of this operation. Obviously it would be unfair to these women to sterilise them for possible dangers which may never exist.

*Am. Jour. of Obstet and Gyn. October, 1927.*

RECENT ADVANCES IN THE TREATMENT OF  
AMÆBIC DYSENTERY

PHILIP MANSON-BAHR, D.S.O., M.D., F.R.C.P.

and

E. G. SAYERS, M.B., Ch.B.N.Z., D.T.M. and H.

*Yatren*

In 1921 P. Mühlens and W. Menk first introduced a new drug called Yatren 105. It is an iodine-oxyquinoline-sulphonic acid compound, and may be given orally, rectally, intramuscularly, or even intravenously. We have experience only of the first two methods, but have now used them on a large series of cases.

By the mouth the usual dose given by most workers has been 15 grains thrice daily, but we found that such a dosage caused diarrhoea, and were content with a smaller dose—4 to 8 grains thrice daily. It may be given in pill form or in cachets.

By the rectum yatren is given as an enema, the quantity used being 200 c.cm. of a 2½ per cent solution. The rectum is first cleared out by a preliminary enema of 2 per cent sodium carbonate, 1 pint, and then the yatren solution is run in slowly and retained as long as possible. Most of the patients can retain it about six to ten hours, and after a little experience many of them can hold it for a much longer period. Proof of absorption consists in testing the urine with iron perchloride, the yatren giving rise to a greenish colour.

The course of treatment adopted on the continent consists in giving it for ten days by the mouth combined with ten daily injections by the rectum. It is good practice to repeat the course after an interval of five to seven days. The diet should be light, and can include fish, pudding, and chicken; a milk diet alone is quite unnecessary. Apart from the diarrhoea following large doses by the mouth, we have observed no toxic symptoms attributable to yatren, and we have not been able to find any evidence of such in the literature. It certainly is a very safe drug; in spite of the large amount of iodine in the combination, symptoms of iodism are unknown. It is possible to give it to children, which is a great advantage as compared with emetine and emetine-bismuth-iodide. Mild cases, such as cyst passers without symptoms, may be treated without confinement to bed, but absolute rest should be part of the treatment of any more acute dysenteric condition.

Yatren is certainly a safe non-toxic drug, and much more pleasant from the point of view of the patient, who, as a general rule, increases in weight during the treatment. We believe it to be a drug of the very

greatest value and can fully confirm its efficacy in curing long-standing cases of amoebic dysentery which have proved resistant to emetine and emetine-bismuth-iodide.

*Combined Treatment with Yatren and Emetine Bismuth-Iodide*

During 1926 the combined treatment has been given to 22 cases, 3 grains of emetine-bismuth-iodide being given every night and yatren (200 c.cm. of 2½ per cent solution) lavages in the morning. To our surprise this seemingly drastic treatment was well tolerated by the patient, and the usual diarrhoeic effect of emetine-bismuth-iodide when given alone was not observed; Vomiting was almost entirely absent.

From a clinical point of view these cases have been the most successful in a series of 153 proved cases of amoebic dysentery which we have quoted in this paper, especially when it is remembered that most of them were war infections of long standing and especially intractable to treatment.

The combined treatment has much to be urged in its favour. It has, we think, been abundantly demonstrated that both these drugs possess a definite curative value in amoebiasis, which may be limited in its extent when they are used singly, but is much more intensive when both are combined. We do not think there is any doubt from our observations that yatren is widely absorbed, but it may be that it can only reach the amoebic lesions situated in a limited area of the large bowel, and so extensive lesions in the caecum and ascending colon may escape. These lesions and their contained parasites are thus reached by the emetine-bismuth-iodide given by the mouth. Moreover, as the treatment is continuous both by day and by night, the parasite is given no chance to recuperate. Whatever may be said about the rationale of the method, the combined drugs are remarkably well tolerated, and the results, as controlled by the sigmoidoscope and backed up by clinical observations, are very satisfactory.

In order to be efficacious, emetine-bismuth-iodide must be prescribed and administered in the proper manner. It is useless, in our experience, exhibiting it in pill or stearet form, as is frequently done, since it will be passed out of the bowel unchanged. If covered closely with any protective substance the drug is not absorbed. When given as recommended here it is more nauseating, and is apt to produce its most disagreeable effects. The red powder should be enclosed in a gelatin capsule.

If the full dose is to be tolerated it is better from the point of view of the patient to take one capsule containing 3 grains of emetine-bismuth-iodide rather than three capsules containing 1 grain each.

The usefulness of the smaller sized capsule is that the dose can be graduated, and in sensitive persons and in women it is better to commence with smaller doses—1 grain for the first night and 2 grains for the second, so as gradually to accustom them to this drug. Some people cannot tolerate more than 2 grains. It is most important to observe certain precautions in giving the drug. The patient should have had no food or drink for four hours beforehand, and should be absolutely at rest when swallowing the drug. He should endeavour to go to sleep, and any saliva should be wiped from the mouth and not swallowed. Should vomiting ensue within two hours of giving emetine-bismuth-iodide the drug will not be absorbed. In these cases it will be necessary to give 10 minims of tincture of opium about half an hour beforehand. Generally this salt is best tolerated at 10 p.m., though in some cases it is useful, in order to avoid a restless night, to give it earlier—at 6 p.m. When given at 10 p.m. the last solid food should be taken at 4 p.m. and a glass of milk permitted at 6 p.m. Hot applications or sinapisms to the epigastrium are useful in prevention of vomiting due to the liberation of the drug from the capsule.

*B.M.J. September, 17, 1927.*

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### PULMONARY AMOEBIASIS

C. A. H. DOPFER

An interesting and full review of the subject. Only some indication of its scope can be given. Abscess of the liver extending through diaphragm into lung, and rupturing into a bronchus; and abscess of lung separated from, yet once connected with a co-existing abscess of liver, are well known. Besides these forms of pulmonary amoebiasis there exists:—

1. *The primary amoebic abscess of lung, having no connexion with abscess of liver, which organ is unaffected.* In most, but not all cases of primary amoebic lung abscess there can be obtained a history of former dysentery or diarrhoea. Primary abscess of lung is usually single, but close around the obvious single larger abscess are often satellite smaller ones which eventually coalesce with the central larger one. Multiple primary abscess of the lung has been recorded. The primary abscess has been recorded more often in the right than in the left lung. Its size may reach that of a foetal head. The author describes its macroscopic and microscopic anatomy, discusses lucidly the often very difficult differential diagnosis, and stresses the point that if amoebae are not found in the sputa diagnosis may be settled by noting

the effect of emetine treatment. For though emetine by its vasoconstrictor action cures haemoptysis, it does not cure pulmonary tuberculosis, which will progress in spite of its administration; but emetine will cure pulmonary amoebiasis. He discusses the matter of surgical intervention; in those cases where free drainage through a bronchus has not been established and where the abscess is too large for absorption surgical measures are necessary.

2. *Amoebic bronchitis.* The author doubts if this be a proved entity yet; he recounts the evidence in its favour brought forward by Petzetakis; and Mme. Panayotatou, who indeed claims priority in this matter, and some others; but he notes that many observers on the look-out for it in countries where amoebiasis is frequent and well-known have failed to confirm the existence of amoebic bronchitis. He describes its symptomatology—that of ordinary bronchitis—and its cure by emetine therapy. Mme. Panayotatou has described a case of amoebic dysentery in a girl, and later amoebic bronchitis of the girl's father apparently infected by the daughter. The author notes that given the reality of amoebic bronchitis then this in turn may infect others and cause amoebic dysentery.

*Trop. Dis. Bull. October, 1927.*

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## RECENT AND PRACTICAL EXPERIENCES IN THE DIAGNOSIS OF LIVER ABSCESS

Dr. P. MANSON-BAHR

The illustrious Patrick MANSON taught that the secret of success in the diagnosis of liver abscess was always to think of it. Although a "classical" case of tropical liver abscess, so well described in the text books, presents no difficulty in diagnosis, yet, the author points out, variations from the type picture are frequent in practice, and may be of such a degree as to make diagnosis very difficult. But accurate and early diagnosis is of great importance to the patient. In these two papers Dr. Manson-Bahr has fully and clearly described and discussed the variations in clinical signs, and absence of signs, of liver abscess in a recent series of 40 cases occurring in his own practice. We can give but a brief summary of the main points described by the author. 38 were men; 2 women; 37 right lobe; 3 left lobe. In these 40 cases repeated microscopic examination of faeces revealed cysts of *Entamoeba histolytica* in 57 per cent. History of previous dysentery, or intestinal disturbance, or intermittent diarrhoea, was given by most of the patients, but in 14 cases no such history was obtainable. Typically,

onset is insidious; but in 3 cases it was sudden, with rigors simulating malaria. In 2 cases toxæmia was so profound that a diagnosis of enteric fever had been made. A peculiar earthy tinted facies, with emaciation, is almost pathognomonic; however, in 3 cases the patient's normal rubicund countenance persisted. Emaciation may be extreme enough to suggest malignant disease, or there may be no loss of weight. In 3 cases abscess of liver was present at the same time as the passing of bloody mucous stools containing *E. histolytica*. In 2 cases in which abscess burst through diaphragm into bronchus, there was melaena—typical black tarry stools. Although pyrexia is usual, in 2 cases there was no exploratory aspiration alone can settle diagnosis in these latter. Night sweats very often accompany pus in liver; yet in the more chronic form of abscess they may not be noticeable. In the hepatic area, pain is no; so frequent as is a sense of weight or uneasiness; thus the shoulder may droop on the affected side. Pain may be felt by the patient only on direct pressure on, or forcible percussion over, the anterior surface of the liver itself. Pain is common in the acute, rarer in the chronic, abscess.

Pain referred to the shoulder joint is the most striking and characteristic symptom; it is searching in character and intensified by warmth—as in bed. It usually radiates over the right shoulder; liver abscess is usually in the right hepatic lobe; but in 3 cases of left lobe abscess there was left shoulder pain. This shoulder pain is the outstanding symptom of liver abscess; its significance should never be forgotten. It may be quite transient and so must be enquired about. In one case the shoulder was thought to have been accidentally bruised and not till months later was the liver abscess discovered. Intrathoracic distress may be set up by pressure, and the heart may be displaced by large effusions.

Intra-abdominal pressure may produce gastric or duodenal irritation and, if emaciation be present, dyspeptic symptoms may suggest malignant disease. With moderate sized abscesses increase of liver dullness is downwards. If the abscess lie in the upper and posterior portion of right lobe exerting pressure on diaphragm, then liver dullness is increased upwards and the heart may be displaced. One case showed no appreciable enlargement of liver, yet yielded by aspiration 25 oz. of liver pus. Pulmonary signs associated with liver abscess consist in, at first, impairment of percussion note, later, signs of pneumonic consolidation, or pleural effusion. Local oedema of chest wall was present in 4—all acute cases. The site of oedema indicates direction in which the abscess is pointing. In hepatic amoebiasis, intestinal ulceration is usually situated in the caecum; sigmoidoscopy

therefore reveals as a rule little evidence of ulceration. Abdominal palpation may discover thickening of bowel in the right iliac fossa; it is rare to find corresponding involvement of sigmoid flexure. From 10 to 35 thousand leucocytes per cmm. were present in 82.5 per cent. of the cases. In 7 cases there was no increase of leucocytes. By X-ray screening, doming, fixation, or diminished movement of diaphragm on affected side may be noted; but in only 7 of the 40 cases was efficient aid in diagnosis given by X-ray. In one case there was definite enlargement of the supraclavicular glands on both sides, associated with abscess in the left hepatic lobe.

*Trop. Dis. Bull. October, 1927.*

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## Book Reviews

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### CLINICAL APPLICATION OF SUNLIGHT AND ARTIFICIAL RADIATION

EDGAR MAYER, M.D.

Published by: The Williams and Wilkins Co, Baltimore, U.S.A.

Price G\$10.00.

This book reviews the evidence to determine whether light deserves a place as a definite therapeutic agent; it also reviews past experience in light therapy, and surveys modern therapeutic uses of both artificial and natural light. It is interesting to note that the red light treatment for small-pox is said to have been borrowed by the Arabians from the Chinese.

The chapters dealing with the nature of radiation, the action of light in animal and plant life, the action of light on growth and nutrition, and the effect of radiant energy upon bacteria and related biological products, are decidedly technical, requiring a good grounding in physics and bio-chemistry for their proper understanding.

Forty-six pages are devoted to the physiological action of light, and will well repay careful study. It appears that the shorter waves are readily absorbed by protoplasm. The red rays can penetrate the subcutaneous tissues and heat the blood. The blood cells and platelets may under some circumstances be altered in number by ultra-violet exposures, and lymphaginitis can be regularly produced in healthy rabbits by the shorter ultra-violet rays.

The influence of climate on solar radiation is briefly considered, and thirty-eight pages are devoted to the application of solar and aero-therapy, illustrated with a number of interesting photos of cases at various stages of treatment.

The chapter on the sources of light used in therapy is necessarily of practical interest, especially to those responsible for the equipment and control of a light therapy department. Interesting comparisons are made of the

composition of light from various artificial sources and from the sun itself. A special quotation from Sir Henry Gauvain's "Organization and Work of a Light Department in a Hospital for Surgical Tuberculosis" is appended, and describes the arrangements used at Alton by this eminent British disciple of Rollier.

Thirty four pages are devoted to clinical studies with artificial light, and there are fifteen plates in this section, in addition to diagrams. One gathers from this chapter that the author favours the use of artificial light in almost any case of tuberculosis, other than pulmonary, in which it must only be used with the greatest care. Considerable success has been attained in cases of laryngeal tuberculosis by the use of a special application.

The two final chapters deal with indications and contraindications, and the X-ray treatment of tuberculosis. There is an appendix on the influence of light on bio-chemical reaction, and a bibliography of no less than fifty eight pages.

This book may be cordially recommended to medical practitioners or other scientists who wish to obtain an unbiased view of the present position of heliotherapy and artificial radiation. It is of considerable academic as well as practical interest.

S. D. S.

#### OUTLINES OF DENTAL SCIENCE\*

Volume I. Dental Anaesthesia, by G. F. Rawdon Smith, M.D. With Illustrations. Price 7/6 per volume. Publishers: E. & S. Livingston 16-17 Teviot Place, Edinburgh 1926.

As indicated above, this is the first volume of a series of Outlines of Dental Science by expert authors who have distinguished themselves in their respective fields. Such a handy volume attractively got up, and briefly describing all the important points and details of Modern Dental Anaesthesia should fill a distinct want. The book is of special value to the dental student in his preparation for examinations; while the dental surgeon as well as the practitioner of general surgery should likewise find a work of this kind helpful for reference.

The early chapters are devoted to General Considerations, describing Methods of Administration, Physiology of Anaesthesia, Theories of Anaesthetic Action, Distribution of Anaesthetics in the Body: Excretion of Anaesthetics and the Action of Anaesthetics on the Various Systems are treated in an interesting manner. There is a well written chapter on Nitrous Oxide as well as one on Local Analgesia. The book should have a wide circulation, more particularly in this land where the Science of Dentistry is still in its Embryo.

OUTLINES OF DENTAL SCIENCE. Volume II. Dental Bacteriology, by Ralph A. Broderick, M.B., L.D.S. With Illustrations. Price 7/6 per volume. Publishers: E. & S. Livingstone, 16-17 Teviot Place, Edinburgh. 1926.

The first principles of Dental Bacteriology outlined in this little volume are clear and explicit and should be in the hands of every dental student. It should prove an aid in every sense of the word to the study of the subject. The

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\*Our apologies to the Publishers and our readers for the late publication of the reviews on the "Outlines of Dental Science." The political troubles in China and the fact that the reviewer had hastily to leave his station just as he received these books, are responsible for the delay—Editor.

illustrations are excellent and it would be a great boon if the work could be translated into Chinese for the sake of those Chinese dental students who may not have a sufficient command of the English language.

OUTLINES OF DENTAL SCIENCE. Volume III. Dental Materia Medica, by Prosper H. Marsden, M. Sc., Ph. C., F. C. S. Price 7/6 per volume. Publishers: E. & S. Livingstone, 16-17 Teviot Place, Edinburgh. 1926.

As stated in the preface this book is particularly intended for the use of dental students studying for the degrees and diplomas of the examining bodies in Great Britain. Dental Materia Medica, is a subject of interest and of practical importance, the whole field of which this little book really covers, briefly yet very clearly. In my judgment the handy volume, which can be easily slipped into the pocket, fulfils very well indeed the purpose for which it was undertaken.

OUTLINES OF DENTAL SCIENCE. Volume IV. Dental Prosthetics; by J. Douglas Logan, L. D. S. With Illustrations, Publishers: E. & S. Livingstone, 16-17 Teviot Place, Edinburgh, 1926. Price 7/6 per volume.

The object of the author in writing this work is to present, within the smallest space, every important step in the technic of fitting an edentulous patient with really professional dentures. Professional dentures are distinguished by being stable in all positions of the mouth, comfortable in use, efficient in mastication, and natural in appearance. Dentistry has made great strides in recent years both in America and in Europe and this little handbook can be considered quite up to date in the treatment of every chapter. It is both instructive and clear and should serve as a complete guide to the study of the subject not only to dental students but to busy dentists as well. The whole work is systematic and practical throughout with numerous illustrations. We can cordially commend it to all students of dental prosthesis.

OUTLINES OF DENTAL SCIENCE. Volume V. Dental Radiography, by Charles A. Clark, L.D.S. Publishers: E. & S. Livingstone, 16-17 Teviot Place, Edinburgh, 1926. With Illustrations. Price 7/6 per volume.

The study of Radiography is nowadays universally accepted as absolutely indispensable to modern surgery and dentistry. There is in existence much literature on the subject, but a little volume of this description should fill eminently a most distinct want. The technique is clearly and concisely written. It is of special value to the surgeon and dentist particularly for an accurate diagnosis of fractures, diseases of the jaws, and root canals. The book is printed on good paper and the illustrations are instructive and clear. It can be confidently recommended to all dentists and surgeons as a guide to a practical study of the subject.

T. S. W.

## Correspondence

## Epidemic Encephalitis

*Hong-Kong 1. 12. 27.*

Dr. James L. Maxwell,  
Editor of the C.M.J.  
Shanghai.

DEAR DR. MAXWELL,

I have read with interest the "Notes on Medical Practice in Yunnanfu" by Dr. A. J. Watson in the Nov. issue of your journal. Basing on the history of one of his patients suffering from epidemic encephalitis the writer draws the conclusion that the disease has already existed in China in the year 1915 which is in the writers opinion two years before—but actually in the same year as—its outbreak in Europe had become known. The writer further concludes that the disease is endemic in China, at all events in Yunnan.

With regard to the importance of the question I regret that Dr. Watson has not given full details of the history and clinical status of his case. Without the corroborating material of previous medical examinations I fear it will be impossible to bring forth sufficient evidence to prove that the disease had already started 12 years ago. Every one who is familiar with the disease knows how difficult it is to get exact data with regard to onset and development of the disease from a patient in the advanced Parkinsonian stage. Similarly statements by family members do not include less fallacies. Besides the initial symptoms of epidemic encephalitis often resemble those of other infectious diseases and even in cases of much shorter duration it is sometimes quite impossible to fix the exact date of the onset.

Therefore Dr. Watsons suggestion that encephalitis lethargica existed already in 1915 in Yunnan lacks convincing proof.

Further it seems to me not likely that the disease is endemic in China or even had its origin in Yunnan, a statement which Dr. Watson probably also bases on this single case which is very doubtful with regard to the time of its onset. We then would have expected a spreading out of the disease in the form of more or less marked epidemics, as we have seen in Europe and America during the years 1917-1920.

We had this kind of small epidemics in China but they appeared later. I have tried to trace the onset of the disease in over 100 cases which I have observed in China, but have not yet found a reliable case, the onset of which was previous to the year 1919. I still hold the view which I presented in my paper in the *Caduceus*, August 1926, that epidemic encephalitis was introduced into China from the West by way of India and the southern ports.

M. O. Pfister

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### Syphilis of the Central Nervous System

*Box 217 Tsingtao,*

November 22, 1927.

Dr. James L. Maxwell,  
Missions Building,  
Shanghai.

DEAR DR. MAXWELL:

Referring to the contribution of Dr. Mumford in the correspondence columns of the November number of

the C.M.J., it is my impression from two and a half years of work at Nansuchow that,—

- a. Syphilis is all too common
- b. It is never adequately treated in our section
- c. Syphilis of the central nervous system is not as common as one might expect, but it is not by any manner of means absent. My experience cannot confirm the statement made for Formosa.

- d. The relation to malaria is different in the two cases for we see approximately 50 cases a year among 3,000 new patients.

I submit this observation for what it may be worth. The mass of material is too small and not worked up with sufficient accuracy to justify any conclusions.

Sincerely,

Richmond Douglass.

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## Obituaries

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### William Hector Park, A.B., M.D.

On October 27, 1858, Dr. William Hector Park was born in Catoosa County, Georgia and it was here on the little farm that he grew up during the hard days of post war reconstruction. It was here that he formed the purpose to become a missionary to China and with this aim dominating his life he managed to struggle through Emory College and graduate with the class of 1880. Of three of his class accepted to go to China as missionaries he was requested to first study medicine. He graduated from Bellevue with the class of 1883 though he was permitted to come to China in the fall of 1882 and to send his final papers in from here.

He landed in Soochow on November 17, 1882 in company with Dr. Walter R. Lambuth. In 1883 and 1884 together they founded and built the Soochow Hospital. At that time it was considered one of the most up-to-date hospitals in China conforming to many of the most advanced ideas of hospital construction. When it was decided that Dr. Lambuth was to be transferred to another field Dr.

Park was sent back to New York for further study and returning in 1886 took full charge of the Soochow Hospital where he remained till 1927, a period of 45 years service.

On October 6, 1886 he was united in marriage to Miss Nora Lambuth, a daughter of one of our early missionaries and sister of Dr. Lambuth. She and their only daughter, Mrs. D. L. Sherertz, survive Dr. Park.

He rapidly won a place in the hearts of the people of Soochow with his genial manner and his kind and generous ways. His Chinese friends throughout this section of the country are numerous. His work was confined to no special line but his skill was recognized far and near. During his brief reign as Emperor Yuan Shih Kai honored Dr. Park with a special scroll. He was also decorated by Peking with the sixth degree of the Golden Harvest.

His activities were by no means confined to the practice of medicine. He and Dr. Lambuth began the training of doctors when they first opened the work at Soochow and continued to maintain a medical

school till 1909. From these efforts have come many worthy doctors who have gained wide reputations. Early in the history of the Anti-Opium Society he was active and did much towards opening the eyes of the world regarding the evils of opium in China. This was one of his activities of which he spoke with pride. It was through his efforts and influence that the Soochow University secured its fine campus immediately after the Boxer trouble.

During the troublesome period of 1927 he decided to retire to his home in the United States for his final days and it was here at Hawthorne, Fla. that he passed away on December, 5, 1927.

Long will he remain dear to the people, both Chinese and foreign, who knew him best and greatly will he be missed in our work.

John A. Snell.

The Editor regrets that a photograph of Dr. Park accompanying this obituary has gone astray. He hopes to publish it later.

#### Dr. G. Mary Terrell

News has just come to Shanghai of the death of Dr. Mary Terrell of the London Missionary Society, at Wuchang on the 26th Dec. No details have yet been learned beyond the fact of her death.

Dr. Terrell was the daughter of a missionary of the L. M. S. who died at his post in Siaokan, Hupeh, just about the time she was born. Her mother, Mrs. Terrell, returned to England with her two children, an

elder brother and Mary, and through all the long years of care and work for them, steadfastly kept before herself the determination to return to China when the way opened, and to that end kept up her Chinese studies throughout. This hope was realised in 1916 when she returned as a missionary to her old station of Siaokan, where she worked until last year. Soon after her return, her son, who was preparing for missionary service in Central China, was killed in action in France.

Mary, or Meilee as she was known to her friends, returned to China for some time, and then went home to start her medical course at Bristol. Was it any wonder that, with such a family history behind her, she had devoted herself to the same great calling as her parents and her brother?

Two years ago she started on her life work that has proved so brief, and in Hankow and Wuchang L.M.S. Women's Hospitals and also, during the troubles in Central China, at the Lester Chinese Hospital in Shanghai, she has been working for the poor and needy of China. In June last she was able to return with her mother to Wuhan, and still more recently they went to reside in Wuchang.

Dr. Terrell has endeared herself to everyone with whom she has come in contact by her brightness and activity, her ready sympathy and patience and her real courage, and for those with whom she has worked her early death will be a great grief.

To her mother, who has sacrificed so much for China, we can only offer our heartfelt sympathy and prayers.

**News and Comments****The Secretary**

Dr. Maxwell left Shanghai on December 27th. for a visit to Hongkong and Canton. He is hoping to learn at first hand of the progress of work in the latter place and to get an opportunity of conferring with the President in Hongkong.

**Improvement in the Medical Situation**

Despite the continuance of fighting in certain areas the general situation as regards the hospital work shows definite signs of improvement. In many of the southern provinces the doctors are beginning to get back to their hospitals even in the country districts.

The Editor hopes to be able to start a series of short articles in an early number of the Journal giving the latest information of the position in the different provinces.

**Ephedrine**

We notice that Messrs Burroughs Wellcome and Co. have now added Ephedrine to their "Tabloid" products for oral and hypodermic use.

**Mosquito Surveys**

The Wellcome Bureau of Scientific Research has published a handbook for Anti-Malarial and Anti-Mosquito field workers. The trade notice of this gives promise of a most interesting volume which we hope later to have an opportunity to review.

**Tsinan Leper Hospital**

This Institution is now about a year and a half old. The scheme was projected as far back as 1920, and finally came to fruition as a result of co-operation between the Shantung Christian University, the Mission to

Lepers, and the local Chinese gentry. The Civil Governor provided the land and promised a monthly grant for running expenses, a promise whose fulfillment has been interrupted recently owing to the disturbed conditions. The Shantung Christian University promised medical oversight, and holds the property in trust, while the Mission to Lepers paid the cost of the building and gives an annual grant for running expenses. These three bodies, with the addition of the Chinese Christian Church, appoint representatives on the governing board of the hospital.

The building stands to the south-east of the University campus, and is a model of simplicity and economy. About fifty men patients can be accommodated, but up to the present only thirty have been in residence at any one time. Only patients whose disease is not too far advanced are admitted, and during the eighteen months of its existence the hospital has discharged fourteen patients on parole, practically cured.

North of the hospital is a piece of land which the inmates till, but there still remains to be found for them a form of healthy manual work in which they can employ their spare time. All patients are admitted and taken care of free of charge, but on leaving the institution voluntary contributions may be made, one of forty dollars having been handed in recently.

It is hoped that a branch for the care of women patients may be added. When this is done, the hospital will form a complete unit, one of those pieces of work which should exist in every province of China as an object lesson in the beneficent scope of Christian philanthropy.

*P. U. M. C. Calendar, Nov. 30, 1927*

NEW MEMBERS PROPOSED

Mortensen, Margit	M.D., Oslo	N. M. S.	Changsha, Hunan.
	Proposers: Dr. Susanne R. Parsons, Dr. Grace K. Martin.		
Liu, Ching Fong	M.D., Indiana Univ.	Private Practice	Takasago-cho Tsinan, Formosa.
	Proposers: Dr. James L. Maxwell Dr. Iva M. Miller		

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NEW MEMBERS ELECTED

Dr. Cecil Bennett	General Hospital	Shanghai, Ku.
Dr. I. Lloyd Johnstone	C. I. M.	Chefoo, Sung.
Dr. C. A. Siler	Private Practice	Tientsin, Chi.
Dr. Ruth F. Wolcott	M. E. F. B.	Foochow, Fu.
Dr. B. C. Chang	A. B. F. M. S.	Chaoyang, Tung.

—IMPORTANT NOTICE—

*The Telephone number of the office  
of the Association has been  
changed. It is now  
Central 18997.*