

situation and its connection with the urachus, generally in the lowest fourth of its extent. The cyst possesses a dis-

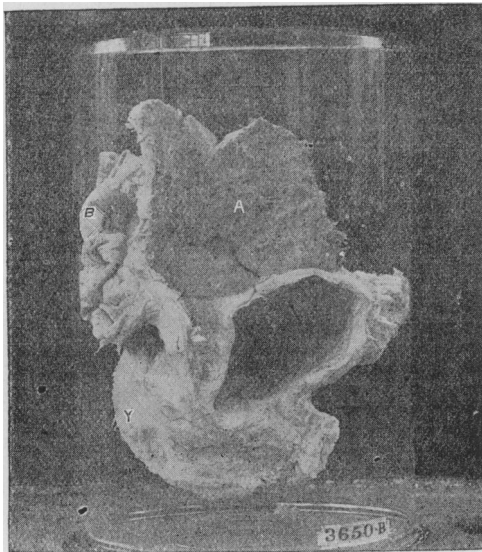


Fig. 13.—Royal College of Surgeons Museum. A. Wall of sac. B. Adherent coils of ileum. Y. Rectum.

tinct covering of smooth muscular tissue, and is lined with stratified epithelium. Usually they are not larger than a horse bean. Certain very large preperitoneal cysts met with in the course of abdominal sections have been attributed to dilatations of the allantoic canal because of their situation and the escape of urine from the operation wound. But the evidence is inconclusive, since such cysts may be confused with apical sacculi of the bladder, encysted peritoneal effusions, or even with ovarian and parovarian cysts. As none of the cases recorded have been demonstrated by *post-mortem* inspection, their allantoic origin cannot be accepted. Multiple cystic dilatations in the course of the urachus are occasionally found in performing laparotomy, but they are always of a small size.

## CHOLERA AT MECCA AND QUARANTINE IN EGYPT.

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THE first announcement officially made of what will be the memorable cholera epidemic of this year at Mecca was on June 7th, when the mortality was already 18 per day, and deaths from "ordinary" diseases 72.

The population of Mecca is estimated at about 60,000, while the number of pilgrims massed together there this year from all parts of the Moslem world is variously estimated at from 200,000 to 300,000; the latter figures I should consider considerably over the mark. As there are no means of estimating the number with even an approximation to certainty, it is a matter of guesswork, and it is well known how difficult it is even for experts to estimate crowds of very large numbers. It is certain, however, that the pilgrimage is very exceptionally large. The members of the Mahomedan faith joined it this year on account of the day of Sacrifice at Moona falling on a Friday (June 24th). The numbers arriving at Jeddah by sea might be pretty accurately controlled, but the arrivals by land cannot be estimated. The number of pilgrims shipped at Suez alone was 25,301, of which 14,310 were Egyptians. Besides this number, 18,931 transited the Suez Canal, coming from the Mediterranean side, giving over 44,000 to be accounted for at the quarantine stations on their return. Deaths from cholera and other pilgrimage diseases will, however, have greatly thinned their ranks, whilst many remain in the Hedjaz to trade, or for other reasons, returning later or with next year's pilgrims. Up to July 13th over 10,000

deaths from cholera had been officially reported from Mecca and Jeddah, while there is no report of deaths from other diseases. That this number, though official, is under the mark, may be inferred from a report of Dr. Chaffy, an Egyptian Moslem, sent by the Quarantine Board as their sanitary correspondent to Mecca.

This report, of which I give a translation of some extracts, reveals a ghastly state of things happening, one may say, almost at the door of Europe, taking account of these days of rapid steam communication. Dr. Chaffy says: "On arrival at Mecca I commenced at once an inspection in the town. The hospital, private houses, and tents were full of people suffering from cholera. I sent you by telegraph the number of deaths declared officially, but on account of the extraordinary mortality it must be admitted that the number of deaths could not be precisely known, and it may certainly be considered to have been double of that officially declared, even more. At 'Moona' it was impossible to bury all the dead, which lay here and there in heaps. Round about the Syrian Caravan (Mahmal) there was a large number of bodies lying unburied. Returning from Moona to Mecca I found the route strewn with dead. In the town of Mecca itself, dead bodies were lying about in a state of putrefaction, and, when they were at last transported to the cemetery, they were thrown down there, and left lying for days unburied from want of a sufficient number of gravediggers. The mortality from ordinary diseases at Mecca was caused by pernicious fevers<sup>1</sup> and diarrhoea."

One has only to read this and Burton's description of Mecca and pilgrim life there on ordinary occasions to form some, but a very imperfect, idea of the state of things after the sacrifices at Moona, under the scorching heat of midsummer. After the sermon of many hours' duration on Mount Arafat, a stampede, graphically described by Burton, takes place down to the Moona valley, where the sacrifice of sheep takes place, the valley being converted for the time into a charnel house. No one who knew these rites was astonished when the mortality after "Moona" was officially reported to have mounted up from 220 and 455 to 1,000 a day. I have seen no account of the mortality on the road on the return journey of forty miles from Mecca to Jeddah, but one may infer that a good many must have died by the way, as cholera was declared amongst return pilgrims at Jeddah on June 29th, and only three days before they were dying at the rate of over 1,000 a day in Mecca, whence they had come.

### JEBB EL TORR.—THE EGYPTIAN QUARANTINE STATION FOR RETURN PILGRIMS.

This is the fourth time within a few years that the Quarantine Board has had to deal with severe epidemics of cholera amongst return pilgrims at its quarantine station at Torr, namely, 1881, 1890, 1891, and 1893. Up to this date news has been received by the Board of the arrival of 7,801 pilgrims at Torr; of these 1,256 only are Egyptians, the rest being from countries on the Mediterranean side—Turks, Moors, Bosnians, etc. These have been conveyed from Jeddah by ten steamers, and 24 deaths from cholera are stated to have happened on board during the voyage, and others from ordinary diseases. Since their arrival at Torr there have been about 100 cases of cholera with about 60 deaths, while the station hospital for ordinary diseases is stated by the director to be already "encumbered" and the doctors overworked. At the date of last report there were 250 sick in hospital of ordinary diseases. Of the choleraic attacks only 3 or 4 have been Egyptian pilgrims. It is to be noted that, according to information received, the Egyptian pilgrims suffered very little at Mecca. In the previous epidemics also of 1890 and 1891 the Egyptian pilgrims suffered comparatively little, and on the present occasion their general health is reported by the director of the station to be good. The Quarantine Board, with knowledge gained from previous epidemics, and knowing the work which would be thrown upon it should an epidemic break out amongst the immense number of pilgrims of this year, took steps in good time to prepare the quarantine station, and is working hard, aided by the Egypt-

<sup>1</sup> Pernicious fever is a vague term used in these countries, and may mean many things. I have known it applied to septicæmia, pyæmia, peritonitis, etc. In a general way, when there are shivers, cold perspirations, collapse, and death, whatever relation they bear to each other, the disease is dubbed pernicious fever.

tian Government, to stamp out the epidemic at Torr, and prevent its introduction into Egypt and Europe. As it has succeeded on the previous occasions I have mentioned, there is good reason to hope that it will succeed again now, though the circumstances are much more serious.

The station of Torr is practically a desert, water being supplied from wells. There are no running streams to pollute, and the pilgrims are lodged in tents. Each ship as it arrives is assigned a section apart for its pilgrims, the sections being at a considerable distance from each other, with guards placed to prevent intercommunication. Healthy and infected sections are kept well apart. The period of quarantine is fifteen days, dating from time of arrival if healthy, or dating from the last case of cholera in the section after arrival. During the quarantine the vessel bringing the pilgrims is cleaned and disinfected, and the personal effects of the pilgrims are disinfected by steam under pressure, for which the Quarantine Board possess disinfecting machines established at the station. If considered necessary, the camping ground of an infected section is changed. The number in a section varies from perhaps 300 to 900, according to the number brought by any one steamer. After having undergone the prescribed period of quarantine without a suspicious case the foreign pilgrims are re-embarked on the steamer which brought them, and pass the Suez Canal in strict quarantine and well guarded, to prevent communication with Egypt. In the case of Egyptian pilgrims, after having undergone the prescribed period of quarantine at Torr and being declared healthy, they undergo a further three days' observation at a fresh camping ground at Rass Mallays—a healthy spot at a considerable distance from Torr—and are thence brought to Suez, generally in clean vessels sent by the Egyptian Government, allowed to land in free *pratique*. Vessels leaving Jeddah with pilgrims receive their papers for Torr and go straight to the quarantine station on the peninsula. The station is guarded by military sent by the Egyptian Government, and I believe there are about a thousand soldiers at present there on duty. All likely places where where sambocks or other small craft might land pilgrims "in contravention" are strictly watched and every precaution taken by camel patrols and coastguard cruisers to prevent return pilgrims from landing in Egypt except by the stations established by the quarantine board. Personal effects too worthless and dirty for disinfection are ordered to be burnt, the Egyptian Government at its own expense having sent a supply of clothing to draw upon to replace them. Communication is kept up with Suez by small steamers lent by the Egyptian Government, which take provisions if required and mails, there unfortunately being no telegraph wire between Suez and Torr. Specimens of the water from the wells were examined some time ago at the Khedivial laboratory in Cairo and pronounced to be good. No complaints have reached the Board as yet as to quantity or quality of the water or food. Two great dangers in the present instance are the chance of the water giving out, which it has not done on previous occasions, and the station becoming overcrowded by prolonged quarantine should many sections continue long infected preventing their being sent off while fresh batches continue to arrive. The work of disinfection has been much and unfavourably criticised, and any one who has had personal experience of crowds of pilgrims the state of filth and dirt of their persons and clothes, the bundles of filthy impedimenta which they carry with them, can easily understand that the disinfection cannot be perfect, but if perfection cannot be achieved (and in what is it achieved?) it is no reason why something should not be done.

#### ORIGIN OF THE EPIDEMIC.

The usual vexed question will no doubt soon arise as to how the disease was this time imported into Mecca. According to information received in Egypt the first cases of cholera were observed amongst the Yemen pilgrims immediately on their arrival in Mecca. It is known that cholera must have been prevailing in the Yemen as lately as the end of last year.

A Turkish transport with troops from Yemen left Hodeida on the 19th of last September, and made for the Turkish quarantine station at Camaran, in the Red Sea. During their stay at Camaran there occurred 47 cases of cholera, 46

cases of chronic dysentery, 38 cases of intestinal catarrh, and 10 cases of pernicious fever. Probably some of the cases of chronic dysentery and intestinal catarrh were choleraic.

During the present season one vessel—the *Knight of St. John*—arrived at Camaran on May 5th from Bombay with over a thousand pilgrims of different nationalities, amongst whom were a few cases of cholera. These pilgrims underwent their quarantine at Camaran, and no further cases, as far as I know, have been reported amongst them.

Discussions on this subject in the past have usually been very unsatisfactory and the conclusions very indefinite. The serious fact remains that cholera epidemics amongst the pilgrims annually collected at Mecca are of very frequent occurrence, and are a standing menace to Egypt and Europe. Four times within the last twelve years the disease might have been introduced by the pilgrims into Egypt or Europe, or both, and the experience of Spain and France has shown how easily it may become endemic. The endeavours of the Quarantine Board have fortunately been successful in stamping out the disease before the pilgrims reached Egypt. The doings of the Board have been very severely criticised in England, often rightly, but oftener undeservedly, and without *connaissance de cause*. Its actions will in the future be very much modified by the decisions of the Conference of Venice, a Conference due entirely to the action of some of the members of the Board, who took the initiative and drew up a programme for their Governments with a view to settle on a more rational basis, and smooth over the ever-irritating question of Suez Canal quarantine.

### ON A METHOD OF DETERMINING THE CONDITION OF BLOOD COAGULABILITY FOR CLINICAL AND EXPERIMENTAL PURPOSES, AND ON THE EFFECT OF THE ADMINISTRATION OF CALCIUM SALTS IN HÆMOPHILIA AND ACTUAL OR THREATENED HÆMORRHAGE.

[PRELIMINARY COMMUNICATION.]

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It is evident that the foundations of a rational system of therapeutics in connection with the treatment of conditions of altered blood coagulability cannot even be laid until we are in possession of a method by which the necessary clinical data on blood coagulability can be collected. The method which I am about to describe allows of such determinations of blood coagulability being made in a drop of blood obtained from the finger. The clinical application of the method is, as far as I know, new; but the method itself is a very obvious one, and must have already suggested itself to other observers.

The necessary apparatus consists of half-a-dozen to a dozen capillary tubes of approximately equal calibre. The blood is aspirated into these, and the coagulation time is determined by blowing down one tube after another at regularly increasing intervals until the tubes are found to have become blocked by clot.

Such capillary pipettes can easily be made by a glass blower out of thermometer tubing, or they can be prepared out of ordinary glass tubing as follows: Soft glass tubing about  $\frac{1}{4}$  inch external diameter is cut up into lengths of about 4 inches. Each of these pieces of tubing is heated in the middle in an ordinary blowpipe flame; and is drawn out into a capillary tube. The capillary tube thus obtained is broken across in the middle, giving us a couple of glass pipettes ready for measurement. Capillary tubes of any selected calibre may be employed, but it would obviously be convenient to constitute a standard size. Those I have employed ranged in diameter between 0.01 inch (*circ.* 0.25 mm) and 0.0125 inch. I employed a column of blood 2 inches (*circ.* 5 cm.) in length. A calibration, which was found quite sufficiently accurate for all practical purposes, was obtained as follows: Two pieces of brass wire, respectively 0.01 and 0.0125 inch in diameter, were selected by measurement under the low power of the microscope. The thicker wire was pushed down the mouthpiece of the pipette until it was nipped by the narrowing capillary tube. This point was marked with a red pencil, and the tube was broken across 2 inches below this point. The thinner wire was now passed down the pipette, and the calibration was considered sufficiently exact when this wire was found to pass out through the extremity of the tube.