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the appendix, using this form in the broader and proper sense, that is, not limiting it to lymphatic obstruction associated with filariasis.

"Good examples of elephantiasis, etiologically akin to the present, are furnished by the striking congenital enlargement of distal parts of the upper and lower limbs when constricted by amniotic bands.

"In the Museum of St. Thomas's Hospital there is the following excellent example:—

"2758 B.—The left hand of an infant, 11 days old, greatly swollen. A short distance above the wrist it is so extremely constricted as to measure only three-eighths of an inch in diameter, the condition having been probably due to the inclusion of the part in an amniotic band. The hand was removed by amputation on the fifth day after birth, by cutting through the tendons. There was nothing abnormal either in the pregnancy or labour.

"In order to make an histological comparison with the appendix under consideration, I examined portions of the skin and adjacent tissue. To the naked eye the piece removed was smooth and white, homogeneous and firm in consistence; it was wanting in the characters of a recent oedema.

"Histologically the structure presented by the corium and subcutaneous tissue is one of intersecting fibrillae, now completely arranged in the corium although there is no demarcation between the two and the mesh is nowhere what would be described as open. Smooth collections of lymphocytes occur here and there, as well as conspicuous channels lined with endothelium and containing lymphocytes without red cells; these obviously are lymphatics dilated as a result of the constriction."

I am indebted to Professor Shattock for his kindness in making the above report and for his permission to quote it.

A CASE OF INCISED WOUND OF ABDOMEN PERFORATING THE STOMACH, WITH COMPLICATIONS.

By Major C. W. Bowle

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The patient, a Lance-Corporal in the Black Watch, was admitted at 11.30 p.m. on July 31, 1920, to 44 C.C.S., Cologne, having been stabbed in a street affray by a knife in the abdomen and in the right thigh.

His condition was very serious: he was collapsed, pallid, with cold extremities, rapid and feeble pulse, rapid respirations, and had vomited large quantities of blood of bright arterial colour.

On examination he was found to have two wounds:—

(1) An incised wound about an inch in length situated at the level of the seventh costal cartilage of the left side, $1\frac{1}{2}$ inches from the middle line.

(2) A wound of the right thigh, $3\frac{1}{2}$ inches long, slitting up the tensor vaginæ femoris longitudinally and penetrating the underlying muscles for about $1\frac{1}{2}$ inches in depth.

Laparotomy was at once performed under chloroform and ether (two parts chloroform, fifteen parts ether)
The incised wound of the abdomen was excised and the wound lengthened in a downward direction for about 3 inches. The peritoneal cavity was found full of bright red blood and an incised wound of the anterior wall of the stomach, about an inch in length, was bleeding profusely; this was closed by a double row of Lembert sutures with fine silk and the effused blood removed with gauze lengths.

No damage to the posterior wall of the stomach or adjacent viscera having been found, and as the patient's condition was very grave, the peritoneum was rapidly sewn up with catgut and the abdominal wound closed. The wound in the right thigh was then thoroughly cleaned up with saline and picric acid solution and sutured. One cubic centimetre of pituitrin was given during the operation and repeated later.

The post-operative condition of the patient was very serious, pulse very weak and rapid, with signs of general collapse.

He continued to vomit quantities of blood throughout the night.

At 9.30 a.m. the following day the patient was infused with sixteen ounces of Bayliss' solution into the median cephalic vein. This infusion was followed by marked beneficial results and by 2.15 p.m. the general condition of the patient had considerably improved. Pulse 100. Respiration 32. Strychnine hypodermically and brandy and water in sips were given. Morphia was given in the evening with good effect.

Unfortunately the next day the patient developed symptoms and signs of acute bronchitis, he also vomited some blood of a coffee-ground character and had some hiccough at times. A very offensive form of diarrhoea now commenced; in spite of being fed only on albumen water this continued with much distress to the patient, but was stopped within three or four days by the administration of bismuth and soda, salol, and later, chlorodyne.

A broncho-pneumonic condition of both bases now developed, the temperature rose to 102.5°F, and he looked extremely ill. He had a rapid pulse of poor volume, his colour was pallid and muddy. Strophanthin was given in 1/250 gm. doses morning and evening.

As it was feared that the patient was suffering from some septic absorption the consulting physician advised exploring the left chest for fluid. Paracentesis was performed but no fluid was found:

A fixation abscess was then initiated by subcutaneous injection of one cubic centimetre of turpentine into the thigh.

Twenty cubic centimetres of mixed staphylococcic serum and ten cubic centimetres pneumococcic serum were also run into the middle cephalic vein, and under the above treatment his condition considerably improved.

The blood having been examined and found to belong to the class of "Universal recipient," a "Universal donor," was found free from malaria and syphilis and 1½ pints of citrated blood was transfused. The administration was accompanied by severe dyspnoea, but this disappeared under rapid voluntary respiration and administration of oxygen.

The next few days showed very marked improvement. A colour became noticeable, pulse became stronger and slower. He passed a good night, the anxious look so characteristic of the preceding days disappeared; the chest signs
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began to clear up, and general progress became marked, he was in excellent spirits and cheerfully declared himself to be on the high road to recovery.

The subsequent progress was one of uninterrupted recovery.

This case is of interest chiefly on account of:

(1) Recovery—subsequent to operative procedure, of a very serious case of wounding of the stomach, in which shock, secondary anæmia, and collapse played a most important part.)

(2) It indicates clearly that in cases of this nature, vomiting of blood is diagnostic of a stomach lesion.

(3) It also shows the value of both Bayliss' gum acacia solution and blood transfusion where there is a loss of blood from currency.

METHOD OF COOLING CONDENSERS, WITHOUT WASTAGE OF WATER.

The method introduced is based on the closed or thermo-syphon principle, and depends for its action on the fact that as the temperature of water increases, its specific gravity decreases, and vice versa. A glance at the sketch will show, an upright condenser of the Soxhlet type, connected by two lengths (one foot six inches each) of rubber tubing to a tank containing four gallons of water.

Thermo-Syphon System. Sketch showing method of cooling applied to upright condensers.

The action of the apparatus will be self-evident. When in use, the water in the condenser at Y becomes warm by absorbing heat from the steam condensed, and rises through the upper tube YA into the cooling tank; the cooling water flowing in by the lower tube BZ to take its place.

A number of experiments were carried out to prove the efficiency of this method of cooling, and all were found to be quite satisfactory.