to every member of the medical profession, and to those even who have gone through the materia medica at least, and is not a novel thing altogether. But I believe that it is seldom or never used for dressing ulcers in hospitals, where hydrarg perchloride and carbolic lotions with boracic acid, carbolic oil and iodoform are more popular and always as a rule resorted to. While working at Tundla, in charge of the E. I. Railway Hospital there under Dr. H. G. Waters, M.R.C.S., L.R.C.P. (Lond.), I had the opportunity of gaining the experience from him that liquor sodæ chlorinatæ gives excellent results in a lotion form in cases of badly sloughing and unhealthy ulcers. During the whole length of my incumbency there I extensively used this lotion, and always used to keep a stock of it of 1 in 20 strength in the hospital, and its consumption is in no way less than other antiseptic lotions; in fact, the initial dressing of all ulcer cases admitted to hospital is with this lotion, and also of the operation cases whenever they present the slightest sign of unhealthy appearance. It removes the slough and dirt, and rapidly makes healthy red and granulating ulcers, which I believe would have taken a longer time by other means.

The object of my recording this is for its circulation, and request that if any one be inclined to use this lotion, he may kindly record his views and results at the same time. I close this with my best regards and most sincere thanks to Dr. H. G. Waters for his kind instructions and for his kindly accepting my co-operation always in the treatment of all his interesting cases.

A FATAL CASE OF SNAKE-POISONING.

BY G. G. HIRST,

LIEUT., I.M.S.

IN July last, a fatal case of snake-bite came under my care. As it presents several points of interest, it is possible that you may be able to find room for the following account of it in your pages. The case occurred in Malakand, and the victim was an exceptionally strong and healthy sepoy, aged 18. He was admitted into hospital at 4-45 P.M. on July 9th, 1906.

He said he had been bitten by a snake about half an hour previously. The snake had escaped, and he could not say whether it was a poisonous one or not. He was an expert snake-catcher, and had been playing with the snake when it bit him; he had then flung it over the wall of the fort, and it was never seen again.

His state on admission was quite normal, apparently he was constitutionally unaffected. Two ligatures had been tied round his wrist, which had effectually stopped the venous return. He had three bleeding punctures at the back of the base of the index finger of the left hand.

When I saw him, about ten minutes after his admission, he professed himself to be feeling perfectly well, only complaining of slight pain in the hand. This was attributable to the ligatures which were tight, and had been in place since ¾ of an hour.

The punctures had been incised and treated with dry permanganate of potash by the Hospital Assistant, when I arrived. The hand was somewhat swollen below the ligatures. I was inclined to suppose that the bite had been that of an innocuous snake; however, I injected 30 to 40 c.c. of antivenene (which had been lately received from Kasauli and was quite fresh) under the skin of the right flank, bound up the wound, and left the patient for about an hour, while I was doing other work in the hospital. When I came back, I removed the ligatures. The patient at this time complained of slight bleeding from the gums, but otherwise appeared to be in normal health.

On the morning of the 10th, the next day, I found that the wounds had been bleeding during the night and the dressings were soaked with blood. The hand was swollen and tender, and the arm so far as the elbow was somewhat swollen and boggy. He complained of pain in the hand. The bleeding from the gums still continued. There was also some persistent bleeding from a minute hole in the right upper eyelid, the site of a recent stye. On examining the wound in the hand, it was found that three small arteries were bleeding freely, and in addition there was considerable capillary oozing from the three incised wounds. The bleeding was very difficult to manage on account of the œdematous state of the tissues, and considering the hæmorrhagic state of the patient, it was not thought advisable to attempt to dissect out the bleeding points. Ligature, pressure forceps, acute pressure, hot water, ice, and styptics were tried in vain; eventually the arterial bleeding was stopped by the application of the actual cautery.

The capillary oozing, however, still continued. The wound was then firmly bandaged, a pad and bandage placed on the bleeding eyelid, and astringent mouthwash given.

Ergotin was prescribed internally.

It was noticed at this stage that the blood which had escaped during the attempt to stop the hæmorrhage, still remained quite liquid in the vessel in which it had been received. One hour elasped, after its being shed, before it shewed any signs of coagulation, and the clot then formd, was extremely soft and flabby. The patient was questioned as to the possibility of a hæmophilic history, but none was obtainable, either as regarded himself or his family. In the evening the patient's condition was good. Bleeding from the eye persisted, but was slight; bleeding from the gums continued; they were painted with Tc. ferri perchlor. Puffy swellings were now noticed in the right palm, the right anticubital fossa and the front of the right shoulder; these were tender on palpation, and were put down as subcutaneous hæmorrhages.

The dressings were soaked with blood and serum which still continued to ooze from the wounds.

The left hand was still much swollen and very tender. 30 c.c. of antivenene were again injected.

On the morning of the 11th, the third day, the oozing still continued, but was now chiefly serum.

Just before my arrival he had had a considerable hæmorrhage from the nose. He was looking pale, but was not markedly anæmic. The bleeding from the gums and eye had stopped; the condition of the hands and arm was unchanged.

On the morning of the 12th when I again saw him, the oozing had stopped. The pulse, however, was weak and thready and pallor was marked. I suspected some internal hæmorrhage, but could find no further signs of it. There was some tenderness in the upper abdomen. Saline solution was injected per rectum. The left hand was still swollen. The puffy swellings previously noted in the right hand and arm were turning blue.

The following day, the 13th, the patient appeared much better. The pulse was stronger, the oozing had entirely stopped, no further hæmorrhages had apparently occurred, and the pain in the left hand was much better. In the evening the temperature rose to 101·4; this, however, was not thought to be serious, and I was not called to see him.

However, on the next day, on visiting the hospital, I was surprised to find the patient's temperature to be 103. The pulse was weak and rapid, he was passing motions and water in the bed and was semi-delirious.

He complained of severe pain in the upper abdomen, in the region of the transverse colon; an enema was given with good result; but the pain still persisting he was given morphia. There were no traces of blood in the excreta, which were quite normal in appearance.

The condition of the hand and arm had improved, the swelling had diminished, and the wounds in the finger looked decidedly healthier. There were no signs of fresh infection of the wound or of suppuration.

No cause of the rise of temperature being discoverable, I prescribed quinine and stimulants.

In the evening the temperature had risen to 104, the pulse was now full and bounding, but very easily compressible, the respiration was rapid and the lips and tongue dry. He was still delirious.

On the morning of the 15th the temperature had fallen to 100·5. The pulse was weak and thready, respirations somewhat hurried and shallow, and the face drawn and anxious, and the general condition very bad.

This collapse was somewhat sudden and surprising, but it was probably due to the effects of the recent high temperature on a constitution weakened by hæmorrhages and the depressing influence of a snake toxin. Stimulants, rectal injections, etc., were tried in vain; the patient sank all day, and died at 8 P.M. on the same evening, six days and some hours after having been bitten by the snake.

The condition of the wound of the hand, at the end was healthy, the swelling had considerably subsided, and the healing process had begun.

The case differed so much from the ordinary cases of snake-poisoning that are met with, that an account of it was sent to Major Lamb, I.M.S., who was lately Director of the Pasteur Institute of India, who very kindly commented upon it as follows:—"It is an extremely interesting account as it gives in detail the symptoms which one would expect to occur in any chronic case of intoxication with the poison either of V. Russelii or Echis Carinata. The various hæmorrhages and the great diminution of the blood coagulability which was observed, are typical of viperine poisoning, and are never seen in cases of poisoning with the venoms of the cobra or of the krait. The question of the failure of the antivenene to avert a fatal result is interesting. If the antivenene was got from the Pasteur Institute of India where I know a serum efficient for both cobra and daboia venoms is prepared, then I should conclude that the snake which caused the bite was Echis Carinata. The symptoms and duration of the illness support this conclusion."

(The serum used was obtained from the Pasteur Institute of India.)

MALARIAL PNEUMONIA.

Is there such a thing?

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Osler in his book writes in one place that:—"A form of pneumonia directly dependent upon the malarial parasite is unknown." Later on, however, he is less dogmatic and states that:—"Pneumonia is believed by many authors to be common in malaria and even to depend directly upon the malarial poison occurring either in the acute or in the chronic forms of the disease. I have no knowledge of such a pneumonia."

Scheube, however, in his book—"The Diseases of Warm Countries" affirms that:—"There seems no doubt that pneumonia may occur in conjunction with malaria. My opinion, however, is, not that the pneumonia as described in this form is a complication, but that it represents an expression of the malarial infection itself." It may be conjectured also, that Manson believes there to be such a thing as malarial pneumonia, a clinical entity apart from a mere complication. Because on page 153 of his book "Tropical Diseases," 1903, I read that:—"It is sometimes impossible to diagnose—malarial pneumonia from croupous pneumonia." These are all the books that I can bring to bear on the subject in this "Across the Frontier" Station. I myself have always scouted the idea that there can be a form of pneumonia dependent upon the malarial parasite. In fact, in my copy of Scheube's book I see the most unparliamentary expression of "Rats!!" noted in the margin opposite the sentence I have extracted from that book and written above. But, on the contrary, in my copy of Osler's medicine I have carefully underlined the sentence "A form