subject of scurvy, a series of cases among Indians being shown by Major Connor and Captain Kamat, I.M.S. Subsequent meetings were held fortnightly, when subjects such as enteric, dysentery, wound treatment, and secondary haemorrhage were discussed, and at other meetings cases and specimens were shown. Weekly inter-hospital clinics between an Indian general hospital and a British general hospital were also held and were of mutual help, especially in the direction of keeping up the interest of medical officers.

I would plead for the establishment of schools for officers at all medical reinforcement camps, so that not only may the time of waiting be usefully employed, but the overwhelming monotony relieved. In this connexion I would like to add my testimony to the excellence of the Sanitary Museum at Makina. Similar museums for the exhibition of the newer splints and surgical appliances might be started at the big bases and be combined with a reference library of the literature of the war.

I am much indebted to Colonel W. H. Starr and Lieut. Colonel H. J. Bond for the facilities afforded to me and for the invariable interest which they took in my work.

A CASE OF ACHOLURIC JAUNDICE.

BY

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On April 25th, 1917, the following case was sent to Queen Alexandra Military Hospital. The patient had been seen previously by Surgeon-Colonel Culver James, H.A.C., who, not being satisfied with the diagnosis (spleno-medullary leukaemia), referred him to the laboratory for an examination of his blood.

A preliminary examination of a blood film was sufficient to dissociate the patient's condition from spleno-medullary leukaemia, so he was admitted into Queen Alexandra Military Hospital, and placed under the care of Captain H. J. S. Morton, R.A.M.C., to whom I am indebted for the following notes of his history and condition, together with the notes from the patient's mother.

The patient, Pte. —, complains of no definite symptoms. He states that "as long as he can remember" he has noticed that "the whites of his eyes have occasionally been yellow." Almost ever since he joined the army he has noticed shortness of breath, palpitation and pain over the heart on exertion, and stitch in the side. These symptoms were slight, and he paid no attention to them. Fourteen weeks ago, during an inspection in France, the medical officer noticed that he was "jaundiced," and he was sent to hospital, where he has remained. He had never reported sick, and complains of nothing now. He states that he is much yellower some days than others, and that it was only discovered seven weeks ago that his spleen was enlarged.

Past History.—He was ill when 8 years old with "abdominal trouble and jaundice." Since then he has been very healthy. He had never been abroad except to France (one week).

Family History.—Father and mother both suffer from heart trouble. Brothers and sisters healthy, except youngest brother, who suffers from anaemia and weakness. No other member of the family has ever suffered from jaundice.

Present Condition.—The patient is a healthy well-made boy, 22 years of age; skin lemon tint; conjunctivae yellow with distinct jaundice, especially around the periphery. No pyrexia; tongue clean; digestion and appetite good. No haematemesis or bleeding from the gums.

Heart and Chest: Normal; pulse 80; slight pulsation of carotids and subclavians.

Abdomen: Liver felt two inches below the costal margin; edge palpable, but not hard. Spleen very large, hard, and firm. Dullness on left side of chest behind from the eighth rib downwards in the scapular line, and continuous with the splenic dullness.

There is slight enlargement of glands in the groin, but no other glands appear to be enlarged. Teeth very good, no foci of suppuration discovered; no digestive troubles; no stigmata of congenital syphilis. There is a definite jaundice tint on the soft palate.

April 30th, 1917. Jaundice of conjunctivae not so marked to-day.

The patient's mother supplied the following interesting facts (I quote her own words):

Between the age of 3 and 4 years my son (the patient) had a very bad attack of jaundice, which lasted for three weeks or longer, and for which he was attended by a medical man. Not being satisfied with the doctor attending, another doctor was

called in and he found him to be suffering from a growth on the spleen. He was taken to the local hospital and detained five months. He came out of hospital in fairly good health, but two years after he had another attack of jaundice, and has had it on and off ever since. I have another son, aged 13 years, who is also yellow. I have also a little girl, aged 11 years, who is delicate and bloodless. I have had one miscarriage, and my husband is now in hospital suffering from blood poisoning resulting from ulcerated legs. This is the fourth time he has been in hospital for this disease.

From this history and from the weak positive Wassermann return of the patient's serum I think we are safe in concluding that there is a strong syphilitic taint.

Examination of the Patient's Blood.

There was marked microcytosis and anisocytosis. These two characteristics were so striking at the preliminary examination made when first seen as to at once call attention to his urine and conjunctivae. Polychromasia, poikilocytosis, and punctate basophilia were also present, together with a few microblasts. No myelocytes were found.

Total count:		
Red blood corpuscles ...	...	5,600,000 per c.mm.
White blood corpuscles ...	...	5,000 "
Differential count:		
Polymorphs ...	...	65 per cent.
Large lymphocytes ...	...	20 "
Small lymphocytes ...	...	8 "
Hyalines ...	...	6 "
Basophiles ...	...	1 "
Haemoglobin ...	...	65 "

The blood serum was decidedly yellow, and gave an indefinite reaction for bile with strong fuming nitric acid. The serum was not haemolytic to the red cells of another patient.

The fragility of the red cells was tested with different strengths of salt solution, and at the same time controlled by blood taken from the laboratory orderly. The result is appended:

Saline Solution.	Patient's Blood.	Orderly's Blood.
1 per cent. ...	No haemolysis	No haemolysis.
0.9 " ...	Partial haemolysis	No haemolysis.
0.8 " ...	Total haemolysis	No haemolysis.
0.7 " ...	Total haemolysis	No haemolysis.
0.6 " ...	Total haemolysis	No haemolysis.
0.5, 0.4, and 0.3 per cent.	Total haemolysis	No haemolysis.
0.2 per cent. ...	Total haemolysis	Slight haemolysis.
0.1 " ...	Total haemolysis	Total haemolysis.

A Wassermann test gave a weak positive reaction.

Urine.—Examined on several occasions, it was at no time high coloured, nor could any bile be detected chemically. When examined by the spectroscope, the characteristic absorption band of urobilin was seen at the junction of the green and blue.

Faeces.—Dark-brown in colour, and free from blood.

Many cases of acholuric jaundice have been recorded since Minkowski in 1900 accurately described the condition. Clinically they may feature hypertrophic biliary cirrhosis, splenic anaemia, Banti's disease, Addison's disease, or congenital syphilis with enlargement of the spleen and liver, but the characteristic blood changes of the former are said to be sufficiently definite to differentiate them. In making a diagnosis it is well to keep in mind one or two points—namely:

1. The blood serum of the above-mentioned diseases may contain bile.
2. Marked enlargement of the liver has been noted in cases of acholuric jaundice. In most cases, however, very little permanent enlargement is found.
3. The urine, although usually free from bile in acholuric jaundice, is on certain occasions, particularly when the jaundice is more pronounced than usual, distinctly bile coloured.

Nowadays there is a tendency among clinicians to divide cases of acholuric jaundice into familial and acquired, and in the latter group syphilis appears to be a potent factor. Whether it produces the characteristic

blood and visceral changes (and I see no reason why it should not), or whether it acts like any other debilitating agent and simply predisposes the patient to the action of other toxin or toxins, is at present undetermined.

Whatever the cause of the disease may be, it appears as if some toxin acting on the spleen causes destruction of the red blood cells with the liberation of haemoglobin, from which the liver by increased activity elaborates bile pigment, usually in sufficient amount to stain the skin and conjunctivae, but, as a rule, not enough for it to gain access to the urine; while the bone marrow is stimulated to increased production of red blood cells, which, owing to the demands made by the system, arrive in the circulation ill-formed and immature.

I wish to record my thanks to Surgeon-General Dallas Edge, C.B., for permission to publish the case, and to Captain H. J. S. Morton, M.B., R.A.M.C., for supplying me with the clinical notes.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

DERMATITIS FROM HANDLING GERMAN BOMBS.

A CASE of dermatitis from handling a German bomb which fell in the air raid on June 13th has lately been attending the skin clinic at Charing Cross Hospital. The patient was a Royal Naval gunner who was detailed by the Admiralty to the extremely dangerous work of removing the detonator from an unexploded bomb which had crashed through a house in the East End of London and buried itself 7 ft. deep in loose earth in the basement. He had to dig away the earth in the dark and, on reaching the bomb, to unscrew and remove the fuse. In so doing the loose powder from the exploder fell on his hands, and it was to this that he rightly attributed the dermatitis.

The dermatitis did not appear till about eight days after he had handled the bomb. When I saw him a few days later the palms of his hands were stained yellow as if by picric acid, the hands were swollen, inflamed, and oedematous, the skin felt hot and tense, and there were deep-seated vesicles between the fingers and on the dorsum similar to those of dysidrotic eczema. The state of the hands recalled the dermatitis from T.N.T. powder, of which a number of cases in munition workers have lately been under treatment at the clinic. The condition took about a fortnight to cure under soothing applications, such as calamine liniment followed by a zinc paste, and when I saw him on July 9th the skin had practically returned to normal. He informed me that should he be detailed for further work of this kind he will be protected by rubber gloves, which will be all the more necessary as the attack will probably render his skin hypersensitive for some time to come to the action of the explosive powder and irritants of an allied nature.

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HAVING had several cases of dermatitis from the bombed area in the City, I should like to add a few notes to supplement those of my cousin, Dr. J. H. Sequeira, and others. In the majority of cases the vesicles appeared on the ninth day. One case, however, of severe dermatitis of both hands, which I showed at the New London Dermatological Society, did not present any eruption till the fourteenth day after the patient had dug out of the earth an unexploded bomb, which, in so doing, he handled a good deal. The long interval in this case is probably to be accounted for by the bomb not having exploded. The dermatitis set up was similar to the T.N.T. cases of munition workers, in which the period of incubation after contact with the powder does not seem so definitely timed, but is determined more by the cutaneous irritability of the individual skin. The sago-grain vesicles on the fingers due to contact with bombs dropped may, it seems, appear as early as the third day, as occurred in one of my cases. A gentleman had gone into a building in the City shortly after a bomb exploded on July 7th. He felt the contact with "the powerful fumes" at the time. On July 10th he noticed the small lumps on his fingers and felt his

face was swollen. When I saw him two days later he had the usual vesicles on his fingers and an erythematous dermatitis of his face. About the same time I saw two other gentlemen from the same bombed area who also had erythematous dermatitis of the face, but no vesicles on their hands or fingers. Another patient, in addition to bullae on his hands, presented curious linear bullous lesions on his forearms, as if the localization and character had been determined by the patient having scratched that part with contaminated fingers. In only one of the cases I saw was there suppuration, and that was in a young girl from Hoxton, with an extensive bullous eruption of the left foot, which developed on the ninth day after perambulating in the debris. Her left boot had a large hole in the sole, through which the irritant penetrated and set up the mischief. Her right shoe was less defective and her right foot thus escaped damage. These cases seem to me to substantiate Dr. J. J. Pringle's remark, quoted by Dr. Adamson (p. 46).

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TREATMENT OF WOUNDS WITH BISMUTH IODOFORM PARAFFIN PASTE.

In this note I wish to point out the great advantage of the bismuth iodoform paraffin paste, or B.I.P., advocated by Professor Morison and employed by him at the Northumberland War Hospital.

The following is the method of treatment which I now adopt in bony injuries, whether recent or chronic, for it is bony injuries in which this treatment gives particularly successful results compared with other methods.

First, the wound edges are excised, if this has not previously been done. Secondly, a free incision is made and loose fragments of bone and foreign bodies are removed. Thirdly, the wound is well dried with gauze. Fourthly, methylated spirit is swabbed over the wound, and, finally, with the wound as dry as possible, B.I.P. is well rubbed into the surface; a teaspoonful is usually sufficient. The wound is then lightly packed with dry gauze, and dry gauze is placed over the surface.

The following day I usually change the surface gauze, as there may be a little oozing. Then, provided the gauze packing keeps dry, it can be left in for at least a week.

If it becomes very moist with discharge I take it out and mop up the discharge with a dry swab (in contradistinction to bathing it with a wet solution), and then repack it occasionally, gradually allowing the wound to close up.

I do not intend to discuss the pathology, as this has been done by Dr. L. G. Anderson,¹ but there are a few points to which I should like to call attention.

Firstly, the reason I emphasize keeping wet dressings away from the wound is because these leave a fluid residue which wets the gauze packing, and is thus apt to give a false impression of the amount of discharge; it also washes out some of the B.I.P.

Secondly, I consider that forcible syringing of deep wounds, especially if they are not carefully dried afterwards, is a very common cause of pocketing and spread of infection along the lines of least resistance. If B.I.P. is used as described above, I feel sure that many secondary operations for establishing drainage will be averted.

Finally, in cases undergoing this treatment, an enormous amount of redressing on the boats, trains, and in hospitals would be avoided, resulting in a great economy of dressings (almost 50 per cent.) and of time and labour for the hard-worked nursing staffs. In addition to this, the patient himself will benefit and much appreciate being dressed once a week instead of daily or oftener, as the process is usually painful and very fatiguing to an already exhausted person.

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SMALL-SPORED RINGWORM OF THE SCALP IN AN ADULT.

We are in the habit of telling people that they need not fear contagion of the ringworm fungus after the age of 15 years.

Mrs. B., aged 61, was sent to me by Dr. Llewellyn, of Bath, a few weeks ago with a rather large oval patch on the side of the scalp. Some children with tinea tonsurans had stayed with this lady and had used her brushes. I

¹ *Lancet*, March 3rd, 1917.