venience. In three weeks after the operation she was sitting up, and in seven weeks, having taken fourteen days' holiday, she resumed her work. Nearly three years have passed since the operation, and I have every reason to believe she is still well.

The operation lasted less than twenty minutes, and every circumstance favoured her recovery.

The small size of the perforation, the absence of induration, the condition of surrounding peritoneum, the site of the ulcer, the small quantity and character of the escaped contents, and the fact that only three hours had elapsed since the rupture, all rendered the prognosis good and the operation easy. From a study of the girl's history, and the appearance of the ulcer, the possibility of a tuberculous origin is worthy of note.

The second case was sent to me at the Royal Southern Hospital on November 12th, 1898, by Dr. Humphreys, who had diagnosed a perforation:

CASE II.

History of Attack.—The patient was a woman, aged 21. Thirteen hours previous to admission she was seized with sudden violent abdominal pain and vomiting. I was in the hospital when she was admitted at 3 o'clock. She looked very distressed, complained of great thirst, and suffered intense abdominal pain. The pulse was 120, very weak, but not running in character. Her extremities were cold, and the abdominal muscles very rigid. A rub could be heard accompanying respiratory movements over left lower ribs in front.

Operation.—We decided to operate at once, and I wish to acknowledge the valued help of my colleague, Dr. Alexander. On opening the abdominal cavity the surfaces of the colon and stomach were seen to be coated with lymph, and to have become adherent to the lower surface of the liver. Adhesions had also formed between the stomach and the abdominal wall. These adhesions were carefully separated, revealing behind a cavity from which oozed brown fluid containing partially digested food. The opening from which this came was found high up beneath the liver on the anterior surface nearer the cardiac than the pyloric end. There was considerable difficulty experienced in bringing the ulcer sufficiently to the surface to enable us to stitch. The perforation would about admit a small finger. It was indurated and surrounded by lymph, which was firm and adherent, and was carefully removed by a Volkmann spoon. We then proceeded to introduce sutures, but found they immediately tore through. A silk suture was therefore passed as near the interior of the stomach, as we felt to be safe, and made to surround the gastric opening. This was tightened in purse-string fashion and leakage prevented. The wall of the stomach was further brought over it and fixed by a row of Lembert sutures, while this was further fortified by sewing omentum over the region of the ulcer. The operation area was carefully irrigated with saline solution, and a gauze drain inserted. The patient seemed to bear the operation without material increase of shock, and saline injections *per rectum* were given for the dual purpose of restoring vitality and allaying thirst.

After-history.—On the next and succeeding days she was starved with the exception of a drachm of water every hour and enemata of brandy, peptonised meat and milk. On admission her temperature was 100.8, and for the first four days it did not rise. Towards the end of the fifth day it fluctuated, its highest point being 101.2. From this time to the fourteenth day it often reached 102, but the patient in all other respects, save a rapid pulse, seemed fairly well. On the eighth day the drain, which had become adherent, was removed. My house-surgeon, Dr. Owen, to whom I am indebted, noted on the fourteenth day: "Patient, after the operation, progressed favourably up to last night, although throughout the fourteen days the breathing was a little rapid. She was, however, able to take bread, and a fair amount of beef-tea, milk, etc., and had not vomited since operation, and the temperature for the last week had reached 102° in the evening." She had no rigors.

Second Operation.—At 3 A.M., fourteen days after operation, she suddenly developed a ticklish cough, and soon expectorated a quantity of foul-smelling pus. Her breathing became rapid, and at 6 A.M. she looked cyanosed. I was away from home, but Dr. Alexander was fortunately at hand, and at 10 A.M. the patient was anaesthetised and the old sinus explored. There was no collection of pus found. An exploring needle was put into the thorax but only clear fluid withdrawn. The needle was next passed into the left hypochondrium and pus withdrawn: this was followed by a free incision giving exit to a quantity of fetid pus. The cavity was well washed out. The patient was throughout the proceedings very collapsed, and various restoratives were prescribed, including strychnine, digitalin, saline solution in axilla, brandy enemata, and sinapism to præcordium. At noon she had sufficiently rallied to inspire hope. In the evening she died.

Necropsy.—A *post-mortem* examination was made by Dr. Owen and Dr. Humphreys. They report that the sinus which was left at the top of the original laparotomy wound did not lead to any collection of pus. The upper surface of the liver was adherent to the lower surface of the diaphragm by very firm adhesions. The repair of the stomach performed ten days before was seen to be healed and the occlusion complete. The abscess cavity which was opened the day of patient's death was seen to lead towards the posterior part of the under surface of the diaphragm. On separating the left lung from the diaphragm to which it was firmly fixed, a small hole was discovered entering lung tissue and perforating diaphragm and discharging foul smelling pus. A probe passed through this perforation entered the abscess cavity explored the previous day by my colleague. On slitting up the walls of this cavity it was seen to be bounded by the under surface of the diaphragm above, and externally by the colon stomach and thickened neighbouring tissues below; its posterior part was the opening communicating with the left lung. The spleen was contained in the centre of this abscess cavity. On opening the chest some clear serum and lymph were found in the left pleural cavity and several pleuritic adhesions were apparent. On distending the stomach no fluid escaped. The wound in the viscus had quite healed, but four of the silk sutures were *in situ*, the others had disappeared. On the

mucous surface a small depression showed where the ulcer had existed. There was no ulcer on the posterior surface.

A greater contrast between two cases could hardly be found. The first was as simple as the second was complex. The fact that operation was not performed for over fourteen hours after perforation was itself sufficient to decide the issue. The adhesions and the involvement of the cardiac end, fixed as it is, rendered suturing a matter of considerable difficulty.

It is interesting to note that over 95 per cent. of cases unoperated upon die. Life is rarely prolonged over twenty-four hours. Ulcers are more frequent on the posterior than the anterior surface of the stomach, but perforations are much more frequent on the anterior aspect. This is probably due to the greater facility with which buttressing adhesions form behind. In 31 cases operated upon, collected by Barling, 22 were on the anterior surface, 5 on the posterior; subsequent cases confirm this proportion.

What was the cause of this perisplenic and subphrenic abscess not connected with the wound area? Had we found an ulcer on the posterior aspect it would have explained much; but it is noteworthy that cases are recorded where retrogastric and perisplenic abscess have caused death where perforation has occurred on the anterior surface alone. This may be accounted for in one of two ways: either by a direct trickling of septic material through the foramen of Winslow into the lesser peritoneal cavity or by lymphatic absorption. In an ulcer on the anterior surface the gastric contents have but to travel round the right free border of the lesser omentum, and both the greater and lesser peritoneal cavities are soiled; and if the foramen of Winslow be closed by adhesions the invasion of an abscess from the lesser cavity will be obstructed.

This raises a final question suggested recently by Willoughby Furner, of Brighton: Would it not be wise in all cases both to examine the posterior surface of the stomach and to irrigate the lesser peritoneal cavity, which can easily be effected through the layers of the great omentum or of the transverse meso-colon? The mere irrigation of the greater cavity may be the very means of infecting by septic particles the lesser one, and a survey of reported cases convinces me that where practicable this should be done. By such a precautionary measure the fatality attending operations for gastric perforations would, I venture to predict, be considerably lessened.

EXOSTOSIS OF THE VERTEBRAL BORDER OF THE SCAPULA: REMOVAL

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Exostoses of the scapula requiring removal are certainly unusual, but in the following case the size of the tumour and the deformity produced rendered such a proceeding desirable.

L. F., a little girl nearly 9 years old, was sent up to me by Dr. Wallace of Earl's Court and admitted into St. Thomas's Hospital for operation on June 23rd, 1898.

The history given was that she had had the swelling nearly all her life, but recently it had not seemed to grow. There was no complaint of pain or of any inconvenience. The parents thought that it might have been due to lifting the child by the arms.

On examination, the right scapula appeared "winged," its inferior angle being raised off the chest wall and displaced upwards and outwards. This proved to be due to a hard nodular tumour springing from the vertebral border of the scapula just above the inferior angle, and having a base of attachment about two inches across. In spite of this mechanical displacement, the muscular movements of the bone were normal. The tumour had caused retardation in the development of the bone so that the vertical distance from the spine to the inferior angle was one inch less on the right side.

On June 28th the tumour was removed. An incision was made over the tumour in the axis of the vertebral border, and this was converted into a T shape by a horizontal cut on its inner side. The thinned lower border of the trapezius was

exposed, and as it could not be drawn out of the way its lower border was notched vertically. The rhomboides major, which was now exposed, was split in the line of its fibres, and the tumour became evident covered over by a thin layer of fibres belonging to the serratus magnus. The fibres were separated not cut, and the bossy growth became fully displayed. Its base was sawn across with a keyhole saw and removed, and as its covering cap of cartilage was continued all round on to the vertebral border, the site of attachment was gouged away to prevent any chance of fresh growth. The tumour was a typical cancellous exostosis, with a very marked cartilaginous cap growing from the epiphysial line between the scapula and its vertebral border, and was about the size of a tangerine orange. After sponging out the wound with lot. hydrarg. perchlor. 1 in 1,000, the edges of the rhomboides major were allowed to fall back into position, and stitched together by three sutures of fine silk. The edges of the cut part of the trapezius were also stitched with fine silk, and a split drainage tube was placed just beneath its lower border. The skin edges were brought together with horsehair, and the wound dressed with cyanide gauze.

On June 30th the wound was dressed to remove the split drain, and on July 4th it was again dressed and found to be healed. All stitches were removed. The temperature was an ideal aseptic one. She left the hospital on July 9th.

About the end of September she came to see me, and then the scapula was in close apposition with the chest wall and all muscular movements perfect.

The treatment of the case and the subsequent progress require no comment to be made. A point to note is the marked interference to the normal development of the bone from the growth of the exostosis, a feature found frequently when these tumours spring from the epiphyses of the long bones.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

SECOND ATTACKS OF SYPHILIS.

In April, 1885, I was consulted by a young gentleman who was suffering from a typical Hunterian chancre upon the corona. It had made its appearance as a pustule a few days after connection, and, after enlarging slowly for about three weeks, had suddenly become indurated. This was followed by glandular enlargement, roseola (which recurred three times at intervals of a few weeks, each attack being milder than the preceding one), sore throat, etc. He was treated with the green iodide of mercury, given in gradually increasing doses until diarrhoea set in, when it was stopped for a few days. All the symptoms disappeared in the course of six months, but the treatment was kept up as a precaution for some time longer.

In October, 1887, two years and six months after the first infection, the patient came to me again with another chancre, situated also on the corona, about half an inch from the scar of the previous one, which was plainly visible. The incubation period was approximately the same. The glandular enlargement, which had quite disappeared, returned again. A papular syphilide followed. There was a characteristic sore throat, and, in short, there were all the ordinary symptoms of a mild attack of syphilis, absolutely uninfluenced to all appearance by the previous one. On this occasion the patient was treated with small doses of blue pill, as he had complained a good deal of the diarrhoea caused by the green iodide. The anæmia was more pronounced, and lasted for a good deal longer than on the previous occasion, and for quite three years he was troubled with reminders—slight attacks of palmar psoriasis, papules on the face, etc., which, however, yielded readily to local treatment. Since then he has been, I believe, quite free. On the whole, the second attack was a little more severe and persistent than the first.

I am under the impression that second attacks of syphilis are much more common than is usually believed. I have the notes of four other patients, three of whom are quite clear

that they have had it once before, and one is certain that he has had it twice; and from the accurate knowledge they possess of the symptoms and course of the complaint, I think it is quite possible that they are correct. The above case I can vouch for, as I attended the patient throughout in both attacks. It is of especial interest from the fact that the time that elapsed between the two attacks—two years and a-half—is almost the shortest on record.

One other point is worthy of note. It is said by some that syphilis is incurable—once syphilitic always syphilitic. It is difficult to understand, if this were the case, how a patient who was already suffering from the complaint could become infected by it.

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THE SLEEPING SICKNESS.

I WAS much interested in the letter of my colleague, Dr. Ferguson, on the sleeping sickness, which appeared in the *BRITISH MEDICAL JOURNAL* of February 4th, 1899. I cannot, however, say that my experience in British Guiana in any way agrees with that of Dr. Ferguson on this matter.

I have never met with a case of sleeping sickness, although latterly I have been very much on the look-out for it. The only approach to it that has come to my knowledge was the case of a coloured Creole woman resident some distance up the Demerara River, who was brought to me with the distinct complaint of being always drowsy and sleeping excessively during the daytime. She was a fine, well-developed woman, and showed no other signs of any disease. Possibly this may have been a case of sleeping sickness in an early stage.

Dr. Ferguson's assurance that "the disease is also sometimes found in the aboriginal Indians of this colony" would be of the highest interest were it not marred by the thought that in all probability he is referring to advanced cases of ankylostomiasis, and not to sleeping sickness. Recently it has been shown by Dr. Daniels and myself, in the *British Guiana Medical Annual*, 1897, that quite 60 per cent. of our aboriginal Indians are the hosts of a blood parasite very similar to, if not identical with, the filaria perstans. We know the extremely suggestive way in which Dr. Manson has shown that the filaria perstans and the sleeping sickness occur in exactly the same endemic areas. If, therefore, Dr. Ferguson is right in his statement that the disease is found in the aboriginal Indians of this colony, we have another very strong link in the chain of evidence connecting the sleeping sickness with the filaria perstans.

Cases of advanced ankylostomiasis undoubtedly may show many of the symptoms of sleeping sickness, but due entirely to the extreme anæmia of the brain produced in ankylostomiasis. Moreover, in a case of advanced ankylostomiasis—and it would only be in such a case that symptoms similar to those of sleeping sickness would occur—one would hardly expect to find blood-counts, such as those given by Dr. Manson in his description of the two cases of sleeping sickness—namely, 5,300,000 per c.mm., hæmoglobin 60 per cent., and 4,500,000 per c.mm., hæmoglobin 50 per cent. There is no special mention of anæmia in either of the cases, nor is that given as a symptom in any of the descriptions of sleeping sickness in textbooks on tropical diseases.

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INFLUENZA AND OTITIS MEDIA.

I HAVE had under my care during the present epidemic an unusually large number of cases of suppurative of the middle ear following an influenzal attack. In some of these seen in the earlier stages the results, under appropriate treatment, have been good, the hearing power being little if at all affected. In others, however, seen later the effect has been most disastrous not only to the hearing power, but also to the condition of the middle ear, the suppuration having been most profuse, with necrosis and shedding of the ossicles, and in two cases the mastoid region was affected and had to be operated upon. My object, therefore, in writing these few lines is to impress strongly upon those in charge of the cases from the commencement the absolute necessity of paying the