loss of weight. Early in February another fluctuating swelling appeared in the right groin and from this two ounces of pus were evacuated. At the end of February the temperature was always above normal. On the 25th granules were detected and the patient was at once given 60 grains of potassium iodide daily. This dose was soon raised to 90 grains. Two months later he was sent to Margate. Here he continued to lose ground steadily. Several incisions were made in the thigh and back, the escaping pus being highly offensive. After a second attack of diarrhoea the patient became very much worse and died with symptoms of general sepsis on May 24th.

At the post-mortem examination the appendix was found deeply hidden beneath coils of adherent intestine and was surrounded by an abscess extending into the psoas and the muscles of the anterior abdominal wall. This communicated with the sinuses in the groin, right iliac region and back. Septic peritonitis had followed the yielding of adhesions between the coils of bowel, probably during the recent attack of diarrhoea. There were no granules found anywhere except in the pus in the sinuses mentioned above. The mucous membrane of the intestine was apparently healthy everywhere. The liver and kidneys showed fatty degeneration: the spleen was considerably enlarged. At the base of the right lung there were recent adhesions and a few ounces of fluid. The latter were caused by perforation of the chest wall from without by an abscess in the back.

CASE 3—The patient, the daughter of an East-end labourer, was 14½ years of age. She was admitted to the London Hospital on April 6th, 1900. Abdominal pain and vomiting ushered in the disease early in January. The vomiting soon ceased but the pain continued and became worse on March 25th. Dysuria was also present. On admission a hard swelling was found rising up out of the pelvis and reaching to within two inches of the umbilicus. It was situated more on the left than on the right side. There was a small lump in the right hypochondriac region. On examination per vaginam the cervix was found to be drawn up. The swelling appeared to be connected with the uterus. The operation showed the uterus to be normal and the swelling to be confined to the abdominal wall. A hard inflammatory condition was discovered with a little pus. Temporary incontinence of urine followed the operation and several slight fits occurred the next day. Early in May a hard swelling appeared to the right of the median wound. On May 16th cultures were made; no tubercle bacilli were found, nor was there evidence of actinomycosis. A nightly rise of temperature began in June, but there was little change in the patient's general condition. On June 5th the patient was removed to the Royal Sea-Bathing Hospital. One or two small, almost translucent, granules were found which on microscopic examination proved to be actinomyces. Iodide of potassium was immediately given, 60 grains daily, without effect. In July an abscess under the iliac crest was opened but no granules were detected. The patient did not gain weight and remained depressed and ill. In the middle of September she was received back to the London Hospital. A new tumour arose in the right iliac fossa and increased rapidly in size until it reached nearly to the umbilicus. It was apparently closely connected with the anterior superior iliac spine. On Oct. 1st the anterior abdominal wall was involved. Leave for operation was refused and the patient was discharged. No granules were recognised during her short stay. In December a visit to her home found her under the care of the Canning Town Medical Mission, by whose kindness I was again able to find the fungus in pus from the large abscess which had spontaneously opened. A month or two later an abscess was incised in the right loin. Diarrhoea increased the cachexia and in May the patient died after an illness lasting over two years. Unfortunately, no post-mortem examination was made.

The following points seem worthy of note. First, the resemblance between the three cases and some in the series reported by Mr. Godlee in THE LANCET of Jan. 5th, 1901, p. 3. Secondly, the tendency of the pus to avoid artificial channels and to track or to gravitate towards the loip; free drainage is insufficient treatment. It is conceivable that light hinders the growth of the "fungus." It would be interesting to know the effect of Roentgen or Finsen rays in cases where the skin is involved. Dental surgeons have sometimes opportunities of early diagnosis upon which the life of the patient depends. In Case 1 it is probable that the jaw was first infected. The necessity for repeated examination of pus in cases of obscure abdominal

abscess has frequently been emphasised; so has the uselessness of iodide of potassium in the later stages of the affection. In a disease of such malignancy surgical treatment should be radical if drug treatment prove unavailing after fair trial.

I am indebted to Mr. A. H. Tubby, Sir W. J. Collins, and Dr. G. E. Herman for leave to use notes kindly supplied by Mr. H. Hallilay and Mr. J. H. Rhodes. Mr. W. Knight Treves and Dr. A. Rowe were in charge of the patients at the Royal Sea-Bathing Hospital, Margate, and gave me ready permission to publish their cases. To my successor, Mr. R. J. Lambart Sladen, my thanks are due for completing the notes.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CONCERNING THE AURICULAR REFLEX.

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IN a short communication from Mr. E. Donaldson¹ a reflex movement of the auricle of the ear is described which was observed by him in May, 1902. In a case of apparent hyperæsthesia of the external auditory meatus under his care the insufflation of a powder was followed by a movement of the auricle. The puffing of air alone was also found to produce the same effect. In a paper on the frontal or supra-orbital reflex² I described, incidentally, this movement which, as a matter of fact, I have observed for several years. As therein stated, at times the reflex follows *gentle* stroking of the skin in front of the meatus—that is, in areas supplied by the auriculo-temporal nerve. The attollens aurem is the muscle usually involved, inasmuch as the movement is generally in an upward direction, and the efferent nerve of the reflex arc is the small occipital. I pointed out that the reflex is more readily obtained in adults by tickling the skin just within the external auditory meatus opposite the tragus. The movement is more lively in children and is obtainable in about one-third of the subjects examined. I find that although a puff of air from an indiarubber ear syringe, as Mr. Donaldson states, is quite effectual, still the quick and sudden contact of a camel-hair brush is much more so. To avoid all voluntary movement I direct that the jaws should be kept firmly and tightly closed.

A proof of the true reflex nature of the movement is the fact that the *opposite* ear, as a rule, is simultaneously elevated. The effect very soon vanishes; it is not possible to obtain it a second time immediately after the first movement. It is necessary to wait for a few minutes before the reflex can be again elicited. Either the will inhibits the movement, or the muscle, as one might indeed expect, since its fibres are seldom active, becomes fatigued. After some education and practice the response becomes more lively, more pronounced, and easier to obtain.

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A NOTE ON THE HISTOLOGY OF X-RAYED LUPUS VULGARIS.

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I AM indebted to Sir Victor Horsley for the opportunity of examining microscopically x-rayed lupus vulgaris tissue, which was freely excised from the frontal region of a man, aged 26 years, for purposes of Wolff grafting—i.e., with the whole thickness of skin down to the subcutaneous fat. The area had been subjected about six months previously to 14 daily consecutive exposures to the Roentgen rays. According to the patient the duration of each exposure was about from 10 to 15 minutes with the tube an inch or two from the

¹ THE LANCET, August 23rd, 1902, p. 506.

² THE LANCET, Jan. 25th, 1902, p. 219.