The patient still remained in an extremely critical condition; the temperature was intermittent, the pulse rate remained high, and the respiration rate averaged about 50. It was decided that the only hope of saving the patient's life lay in giving iodine as intensively as possible. Accordingly the following treatment was instituted: (1) The right pleural cavity and the pericardium were irrigated twice daily with a solution containing collosol iodine (Crookes). (2) Potassium iodide was given by mouth (25 grains three times daily), but later this was changed to iodopin 1 dr. thrice a day. (3) Collosol iodine was given intravenously. The doses were as follows: 10 c.cm. on the first day; 20 c.cm. on the third day; 30 c.cm. on the fifth day; 50 c.cm. on the seventh day; and 80 c.cm. on the ninth day. This maximum dose was repeated at two-day intervals so long as any non-thrombosed veins could be discovered. It is interesting to note that no symptoms of iodism appeared during the course of the treatment. During all this time the patient was very ill and his dyspnoea and intermittent fever continued.

On November 2nd x-ray examination showed that the chest was much clearer; on November 14th the temperature showed signs of settling down, and a few days later became normal. The discharge from the drainage tubes became less and less, and the ray fungus more and more difficult to find. Early in December it was decided to give the patient an autogenous vaccine of *Staphylococcus aureus* derived from the pericardial discharge; injections of this vaccine caused a great reaction, and the empyema wound began to give trouble again. A probe discovered loculated pus, and its removal gave great relief. Again abdominal distension occurred, and albuminuria, which had been present before, became more marked. About December 12th it was obvious that the patient had developed acute nephritis. The urine diminished to 16 ounces in twenty-four hours, and general anasarca with ascites appeared. The urine was examined by Dr. H. S. Pemberton, who reported: "Protein in very large quantities (vast preponderance of serum albumin over serum globulin). All kinds of casts—epithelial mainly—leucocytes and red blood corpuscles present." Paracentesis abdominis was performed on three successive occasions, and 31, 32, and 28 ounces respectively were withdrawn. The fluid was yellow, contained no organisms, and coagulated on standing. Shortly after this the urine cleared up, the anasarca disappeared, and the patient became comfortable again, although the respiratory rate still varied between 36 and 44.

From this time onwards the patient never looked back. Between December 24th, 1922, and February 6th, 1923, he gained 30 lb. in weight. Repeated radiograms were taken, and all showed a great and increasing improvement in the chest condition, though the right diaphragm remained raised.

The serum Wassermann reaction was completely negative, and blood urea estimation showed 15 mg. per 100 c.cm. of whole blood.

On his discharge from hospital on February 13th, 1923, the condition was as follows: General condition very good, no fever, urine contains a slight trace of albumin. The drainage wounds are all healed except for a very small sinus in the pericardial incision. The heart appears normal except that the apex beat is about half an inch outside the nipple line in the fifth space.

As regards the further progress of the case extracts from the patient's letters are interesting. On March 6th, 1923, he wrote to say that he was as well as he had ever been before his illness, but that the sinus was still discharging a bead of pus. This was dressed and potassium iodide was taken regularly.

On May 16th he reported that the sinus was healed, and that he was so well that he intended to resume his work in Canada.

Remarks.

How and where the actinomycosis infection was contracted is a complete mystery. The man was employed in a cardboard box manufactory in Canada, and previous to that had been in the army and had seen active service on many fronts. While on military service he had looked after horses, and it is possible that the infection was contracted at that time and that it had remained dormant until his attack of pneumonia. It is certain that the infection was quite recent so far as its clinical manifestations are concerned, for the man was in apparently normal health on sailing from Canada. Whether the original focus was in the liver with extension to the lung through the diaphragm, or whether it was primarily pulmonary, it is impossible to say.

The patient's recovery was little short of miraculous, as on many occasions his life was despaired of. Despite recent criticisms upon the potency of collosol iodine, it would appear that in this case the drug was of great value and played an important part in the recovery. It is, of

course, impossible to draw conclusions from one case, but we feel that by publishing this note other workers will be encouraged to persevere in more intensive iodine treatment in the fight against this almost mortal infection.

There can be no doubt that the very recent infection in this case, together with the patient's extraordinary pluck and vitality, were most important factors in his recovery.

In conclusion our thanks are due to Mr. Rawlinson for his surgical procedures and to the numerous colleagues who aided and encouraged us in what appeared to be a hopeless battle.

SUCTION IN THE TREATMENT OF SEPTIC EARS.

BY

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It is essential that the practitioner, who in almost all cases has the patient suffering from a discharging ear under his treatment for some time, it may be for months, should realize the disadvantage, not to say danger, of aural syringing. He sees the patient in the earliest stages, and has a much better opportunity than the specialist, who commonly only comes on the scene after the trouble has been long established or complications have arisen.

The intricate anatomical arrangement of the middle ear and its accessory recesses is favourable to bacterial activity. The best known methods of combating bacillary ravages in this region, other than a surgical operation, consist of forcibly syringing out accumulated discharges, and the instillation of antiseptic drops. But the risks involved in syringing out the middle ear in the presence of a chronic discharge are very great. This is aptly illustrated in the case of cholesteatoma. Even the advocates of forcible syringing invariably add a word of caution when dealing with this. Usually, in cholesteatoma, especially if it has arisen, as is almost invariably the case, after prolonged sepsis, there is found an enlargement of the normal aural cavities and mastoid cells, and any watery lotion, if powerfully injected, can easily be driven far afield into the recesses. The effect of syringing is to cause swelling of the semi-desiccated accretions and accumulations, and pressure on the surrounding brain and labyrinth. All watery fluids encourage septic change and bacterial growth.

I have seen many cases in young children, in whom the syringing of running ears has been ordered, where the immediate result of a more than usually forcible injection by the child's mother has been acute mastoiditis and abscess. Indeed, but few cases of acute mastoiditis in children have come under my notice where syringing has not been the customary treatment, with the result that an immediate cortical mastoid operation which might otherwise have been unnecessary was rendered imperative. I cannot, therefore, condemn syringing too emphatically. I wholly disapprove of syringing the ear in the presence of a discharge. I order my patients boracic wool, with directions to twist it up and to wipe out the ear as often as necessary. Syringing may have the effect of driving the sepsis further afield, and on into the most dangerous positions, such as the attic, aditus, antrum, and mastoid cells, becoming in this manner a cause of abscess over the mastoid region. Owing to my dissatisfaction with all forms of ablation and irrigation, and with much of the instillation of ear drops that is still so popular, I have for some years been employing suction to get rid of discharge from the ear and its annexes. This suction method of thoroughly clearing the septic ear of discharge is so successful, that I am anxious to bring it prominently to the practitioner's notice, who, as he sees these patients in the earliest stages of the trouble, can adopt it with more telling effect. The suction method is so easily applied and is so safe and effective that it is eminently adapted to the use of the busy and overworked medical man; and, if adopted by him, would serve to prevent so many septic ears drifting into a serious condition and the patient having to be sent

suddenly to hospital for operation. It is where such emergency operations have to be performed, always in a dirty pus-saturated field, that fatal complications such as septic meningitis are likely to arise.

The simplest method of applying suction to the aural cavity is to attach to the nozzle of a medium-sized glass syringe or a larger metal syringe a short length of rubber tubing which must be inserted into the ear, the piston being drawn out to allow all purulent material to be sucked away. The action is the reverse of syringing, and the addition of the rubber tubing precautionary. Until the ear is dry this method must be repeated with the aid of a good reflected light, which is always desirable. The use of a motor suction pump, with special fine pointed glass tubes bent in several directions, under a good light is a more elaborate and effective method. These tubes may be inserted, under a good light, into the many recesses of the tympanic cavity, up into the attic, down into the depressed floor of the tympanic recess, and back into the aditus.*

For acute otitis media following paracentesis tympani, all the pus from the middle ear may be sucked out by inserting a finely pointed tube into the incision of the membrana tympani. This treatment, added to the application of bell-shaped dry cups over the mastoid, I continue at intervals for forty-eight hours, a mastoid operation being thereby avoided, provided the treatment is used without delay during the inflammatory and congestive stages.

For chronic aural suppuration suction is employed in the ear, over the mastoid, and over the site of the exit of the mastoid vein passing out directly from the lateral sinus; it should be repeated once or twice or even thrice a day for at least one month. This method, when carefully carried out, has, with very few exceptions, the effect of avoiding operative treatment. The system of suction is the means of clearing the ear of discharge so effectively, that it prepares and secures a clear field for operation, should this be necessary, and prevents the most dangerous complication—septic meningitis.

Memoranda :

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF BLASTOMYCOSIS.

THE following case, which was reported to the Norwich Medico-Chirurgical Society, seems of sufficient interest to warrant publication.

Mr. R. first consulted me on May 12th last with regard to an eruption on his face. A casual glance gave the impression that he was suffering from impetigo contagiosa, but on closer inspection and after listening to the history I was forced to alter my opinion. He was in Germany for a considerable period and returned home at the end of November last. Shortly afterwards he had what he described as a boil on the left-hand corner of his mouth; the boil never came to a head, nor was there a slough. As far as I could gather, the usual methods of impetigo treatment had been tried, and failed. Being suspicious that this might be a case of fungus infection, before attempting any treatment I sent him to the County Pathological Laboratory for a report, which was negative in so far as the fungus was concerned. Starch poultices were applied, and after the hard scabs had been removed the resemblance of the condition to the illustration facing page 294 in the latest edition of Norman Walker's *Dermatology* became so strikingly obvious that, being convinced that this was a case of blastomycosis, I again sent him to the laboratory for a report. The second report, together with Norman Walker's description of the condition, I think, clinches the diagnosis.

Dr. W. B. Christopherson's report is as follows: Examinations have been made by the caustic potash method, Gram, and other stains. The films were complicated by the presence of starch granules, but structures strongly resembling blastomycetes are present. By the caustic potash method a few double-contoured bodies are seen (apparently not starch granules), as found in Wernicke's cases. These he named *Oidium coccidioides*. There appears to be strong evidence either of blastomycosis or of a closely allied granulomatous condition.

Norman Walker points out that in his first edition he referred to this condition as a rare form of tuberculosis, of which he had seen two or three cases.

* Messrs. Allen and Hanburys of Wigmore Street have made these special suction tubes in assorted sizes for me.

During the last few years several cases have been observed, particularly in America, and pathological examination has led to the discovery of a yeast fungus in considerably over half the cases. The affected part was covered with a number of contiguous papillomatous elevations, which were more prominent at the margins and from between which pus exuded. The change from the diseased to the normal skin was very abrupt, the condition having a well defined margin.

I did not notice, probably for want of careful observation, the presence of the halo mentioned by Walker, nor was I quite satisfied that the margin had a bluish-red sloping border. I may mention that Mr. R. is a lover of horses, and I think it probable that this is how the infection arose.

I prescribed fairly large doses of potassium iodide internally. Leaving the small patch on the forehead as a control, I applied local treatment to the corner of the mouth, the left nostril, and to the patch at the junction of the cheek and left wing of the nose. The local treatment consisted of starch poultices to remove the scabs, followed by a thorough swabbing with "Fecto," a concentrated form of Dakin's solution made by Parke, Davis. It was found that although the scabs in the centre of the lesion could be removed by this method, those on the margin were more tenacious and had to be scraped off with a sharp spoon.

To date the scabs have ceased to re-form, the purulent discharge has come to an end, and the centre of each patch is beginning to assume the appearance of healthy skin, whereas the small patch on the forehead has not been modified.

In conclusion I would point out that the prognosis is not good. In some instances death has occurred. No actual case of cure is reported, and so far modification of the condition has been the only result of treatment, according to Norman Walker.

Coltishall, Norfolk.

F. SUGDEN, M.B., Ch.B.

INFLUENZA COMPLICATED WITH ACIDOSIS AND RASH IN A CHILD.

I WAS asked to see a girl, aged 6, who complained of headache. She had always been healthy, except for a definite history of acidosis with coma and vomiting three years previously.

The temperature was 103° F., the pulse 130, and the respirations 20. The conjunctivae were injected, the tongue of strawberry type, the throat somewhat sore, and the cervical glands of both sides enlarged but not tender. The heart was normal. The breath sounds were bronchial and a few scattered râles were present. The reflexes were normal, but the patient was listless and irritable. There was no vomiting or diarrhoea. The urine was intensely acid but free from albumin.

The clinical features of the case were those of uncomplicated influenza.

The treatment was on simple lines. Solid food was withheld, and water was freely given, together with a mixture containing potassium citrate and ipecacuanha wine. Ten grains of aspirin were given over a period of two days.

On the third day a rash appeared. Bright red papules and macules encircled the neck, extended behind the ears, and covered the flexor surfaces of the arms, the inside of the thighs, and the buttocks. The rash presented some of the characteristics of the rash of measles and of scarlet fever, but was not typical of either. It was very irritable, and in places became raw and painful. The temperature and pulse rate remained high, but the general condition was good.

In view of the history the question arose whether the case was one of acidosis or an aberrant type of scarlet fever or measles. Dr. Foord Caiger, of the London South-Western Fever Hospital, kindly saw the patient with me five days after the onset of illness. He was of opinion that the rash was not that of any of the exanthemata, but was due to acidosis. Cold sponging, large quantities of water, and full doses of sodium bicarbonate (15 grains every four hours) were ordered, and in forty-eight hours the pulse and temperature were normal, and the rash had faded.

There seems no doubt that the patient had really suffered from influenza. Her young brother had simultaneously a