Our thanks are due to Dr. A. Felix for his collaboration, and to Prof. S. P. Bedson, Sector Pathologist, E.M.S., for his interest in this investigation.

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Medical Memoranda

Actinomycosis of the Tongue successfully Treated by Sulphonamides

The following case record may be considered interesting enough to merit publication.

In May, 1941, a farmer aged 59 had a fluctuating swelling in the substance of the tongue to the right of the middle line. It was aspirated and smears were sent to Dr. Eric Wordley, pathologist, Plymouth, who reported the presence of the ray fungus. The patient was given large doses of potassium iodide, but developed iodism so badly that the treatment had to be stopped after 10 days. He was then given three courses of sulphapyridine 4 g. daily for four days, with an interval of four days between each course. The swelling of the tongue was smaller after the aspiration, and it diminished still more under treatment. In Aug., 1941, it had disappeared and there was no palpable induration. In Sept., 1941, he had lobar pneumonia and again received sulphapyridine treatment for three days. His recovery was uneventful. Incidentally, he has had glycosuria for many years.

He was seen at intervals of six months, and now (May, 1943) the tongue remains normal. Except for the two upper canine teeth, which look healthy, he is edentulous and wears upper and lower dentures; it is therefore unlikely that the entry of infection was through a tooth socket. In the autumn of 1940 one of his bullocks had "wooden tongue," and there may have been direct hand-to-mouth infection from that source.

The medical department of Messrs. May and Baker kindly supplied me with copies of the more important published papers on the subject of treatment of actinomycosis by sulphonamides.

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Arteriovenous Aneurysm of Neck

The following remarkable case is thought worthy of being placed on record.

CASE RECORD

A soldier aged 25 reported sick with attacks of swelling of the neck for the past six years which recurred every few weeks and at times prevented his wearing a collar. Attacks were associated with malaise and an aching pain in the left side of the neck which radiated to the shoulders. Sometimes there was slight dyspnoea and wheeziness, and he felt faint and sweated freely. A small nodule above the left clavicle often enlarged and became tender in the attacks. Throbbing in the left side of the neck and a sense of suffocation were usually brought on by a change in the weather, especially if thunder was about.

On examination he was healthy in appearance, and of good general physique; there was a small scar just above the lower end of the right sternomastoid. Increased pulsation was visible on the left side of the neck, and a systolic thrill was palpable over an area 2 in. in diameter at the level of the thyroid cartilage. Slight expansile pulsation could be felt. A loud bruit, maximal in systole but extending throughout diastole, was heard over the area. The thyroid gland was just palpable. A small gland was felt above the outer third of the left clavicle. There were enlarged glands in both axillae, and the tip of the spleen was palpable. Further questioning elicited the following story:

Six years ago he was riding on the top of a loaded haycart. The man leading the horse foolishly ran the wheels out of the track and the cart heeled over at a precarious angle, throwing the patient into the air. He landed on the prongs of an upturned pitchfork, which transixed his neck, entering on the right side and coming out at a slightly higher level on the left. He was intensely dyspnoeic, but his distress was relieved immediately the fork was withdrawn. There was little bleeding and the neck swelled greatly. At hospital he was given A.T.S. and the wounds were dressed without exploration or suture. After three days he was returned home. He spent the next two weeks resting, most of the time in bed. When helped to a sitting

position he was fairly comfortable, but could not raise himself unaided. There was much bruising, but the swelling subsided in about a fortnight and he returned to work a week later. The symptoms of which he now complains started a few weeks later, and have continued without much change ever since.

Investigation in hospital revealed no radiological abnormality in the chest or neck, and barium swallow was normal. Direct laryngoscopy disclosed nothing unusual. While under observation he had several attacks of malaise, with pain and throbbing in the neck, and, during one of these, fever up to 101°; there was slight generalized glandular enlargement and the spleen was palpable. In this attack the W.B.C. numbered 10,425 per c.mm., 54% of them polymorphs and 37% lymphocytes. No other febrile attack occurred, and though there was increased pulsation on the left side of the neck no definite swelling could be made out. Blood culture on one occasion showed haemolytic *Staph. albus*, coagulase-negative, thought to be a contaminant. The sedimentation rate was normal. Biopsy of the supraclavicular gland showed no abnormality and was sterile on culture.

COMMENT

The nature of these attacks could not be elucidated, as operation was considered to be unjustified in view of the mildness of the observed attacks. The patient was given a full course of sulphathiazole, but it is doubtful if this influenced the condition. He gave a history of symptoms suggestive of fever in previous attacks, but it is uncertain if it was a usual accompaniment. The fever in hospital may have been due to a coincidental infection. It was considered possible, however, that an infective process was associated with an arteriovenous communication comparable to the infective endarteritis seen in cases of patent ductus arteriosus. Apart from one possible contaminated blood culture, however, the blood was repeatedly sterile. It would appear that an arteriovenous aneurysm involving probably the superior thyroid artery was the basic pathological condition, and that some transient disturbance of the circulation in this region, due perhaps to thrombosis or embolism, resulted in an engorgement of collateral vessels. This might explain the attacks of swelling of the neck.

I wish to thank Col. J. L. Hamilton for permission to publish this case, and Dr. R. Arden Jones for assistance in its preparation.

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Intravenous Infusions in Infancy

The provision of adequate fluid is probably the most important therapeutic measure in infancy. In cases with persistent vomiting fluid must be given parenterally, and there are several methods from which to choose, the intravenous route being the method of fewest limitations. The following modification of the Spivek method has been found to be simple and rapid:

A splint is strapped to the lateral aspect of the foot and tied with tapes or bandages to the side and end of the cot. About 0.5 c.cm. of local anaesthetic (novocain or planocaine) is injected over the great saphenous vein, which, although it may not be seen or palpated, is constantly found lying anterior to the internal malleolus. A transverse incision about 1 c.cm. long is made anterior to the malleolus and the subcutaneous tissue exposed. A curved cutting or intestinal needle is inserted at one end of the incision and the point brought out at the other end. The concavity of the needle now contains the vein lying in the subcutaneous tissue. By holding the two ends of the needle between the left index finger and thumb the vein can be dissected out. When it has been isolated the curved needle is threaded with catgut and drawn through. By dividing the catgut at the needle two pieces are left lying under the vein. At this stage, before the vein is ligatured or opened, the drip apparatus should be set up and tested, because any delay later may cause clotting in the vein. An incision in the upper wall of the vein is made with fine scissors or a scalpel, and one ligature is tied distal to this incision. A blunt bevelled needle is inserted in the vein and tied in by means of the other ligature. The drip apparatus is connected to the needle and the flow started. The choice of fluid is a matter for the individual case. Often it is found that the fluid will not flow, particularly in very small or premature infants. The introduction of 10 to 20 c.cm. of saline under pressure from a syringe usually dilates the vein sufficiently to allow a free flow.

The advantages of this method are that it is quick, simple, and requires very few instruments, all of which can be found in any ward or doctor's bag. The instruments required for cutting down upon and entering the vein are a 1-c.cm. syringe, one scalpel, one curved needle, and a ligature (linen thread in an emergency). Aneurysm needle, dissecting forceps, conjunctiva tissue forceps, or even fine scissors are unnecessary.

It is important that the fluid should not be given too quickly. A simple rule is to infuse as much fluid intravenously as the infant would be given by mouth ($2\frac{1}{2}$ oz. per lb. body weight): 5 to 8 drops a minute from a drip chamber is equivalent to 15 to 25 oz. a day.

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