wish to acknowledge the care shown by our then house surgeon—Mr. Vernon Starr—in keeping so clear a record of this important case, and also by Sister Hussey of the electrical department in carrying out so conscientiously the long sittings.

Exeter.

NOTE ON A CASE OF ACUTE PLASTIC IRITIS, MARKEDLY BENEFITED WITH ANTISTREPTO- COCCUS SERUM.

By A. A. BRADBURN, F.R.C.S. EDIN.,

OPHTHALMIC SURGEON TO THE ORMSKIRK HOSPITAL AND DISPENSARY,
AND TO THE SOUTHPORT EDUCATIONAL AUTHORITY.

ON April 11th, 1911, I was asked to see, in consultation, a patient, aged 46 years, who for three or four days had been suffering from very acute pains in his legs, back, and chest. The previous day unmistakable evidence of pleurisy had been found, and so severe had the pains been that four injections of morphine had been given in 24 hours.

I found the patient in bed, looking flushed and anxious. There was intense hyperæmia of the ocular and palpebral conjunctiva of the left eye. The cornea was so hazy as to almost occlude the iris, which could be dimly discerned lying attached to the lens capsule, causing naturally a very deep anterior chamber and a contracted pupil. Vision was reduced to light perception. The ocular movements were normal, the tension was high, but there was no tenderness to pressure. The right eye was normal.

Salicylates and potassium iodide had been given previous to my visit with the idea of combating what looked like an attack of rheumatism. Examination of the patient's teeth revealed the presence of suppuration around the roots, and this feature led us to come to the conclusion that the condition was due to a staphylococcal or streptococcal toxæmia. To settle this point a sample of his blood was taken and sent to Dr. A. Ramsbottom of Manchester. Meanwhile the iodide was stopped, and the dose of the salicylates increased to 20 gr. every four hours. Local treatment to the eye consisted of fomentations and drops containing dionine, atropine, and cocaine.

The patient passed a very good night, quite free from pain, but on his medical attendant visiting him next morning he found the right eye starting a similar but less intense attack, for which he promptly instilled a weak solution of belladonna. On my seeing him I found that the mydriatic in the right eye had dilated the pupil, leaving in the centre of the pupil a deposit of lymph. Atropine was immediately instilled, but only very little further dilation could be obtained, and again it left another ring of exudation on the lens capsule. The condition of the left eye was practically unchanged. In neither eye could any deposits of lymph (keratitis punctata) be made out.

The patient was removed to a nursing home. During the next 24 hours the atropine drops were continued, but the only result was to produce a peculiar tucking up of the pupillary margin of the iris. On the third day a report was received that the examination of the blood confirmed the view that the condition was streptococcal in origin, and upon this it was decided to inoculate with antistreptococcus serum. At 1 P.M. an injection of 10 c.c. of Messrs. Parke, Davis, and Co.'s antistreptococcus serum (polyvalent) was given. At 3 P.M. the temperature went up to 99° F., and the patient complained of itching of his left eye. At 7 P.M. the eye became more injected. This evidence of local reaction was particularly pleasing, and when he was seen next morning it was found that the deposit of lymph on the lens of the right eye had completely gone, and the liquefaction of the exudation had enabled the atropine to start dilation of the pupils. At the same time the texture of the iris became evident, its markings having previously been obscured by the lymph.

No medicine had been given since the injection. The patient was free from pain and had slept well, and was apparently perfectly comfortable and much brighter since he found his vision so improved. Forty-eight hours after the injection the right pupil became fully dilated and the left to three-quarters. In the left eye a curious condition was to be seen. Extending from the cornea to the anterior surface of the lens was a cone-shaped solid semi-transparent mass, bearing a

striking likeness to a lump of camphor. Its broad expanded base was attached to the posterior surface of the cornea; its apex, resting on the lens capsule, corresponded to the size of the originally contracted pupil. As matters progressed this mass rapidly melted away, and in four days all that was left was a centrally situated nodule, surrounded by a series of concentric rings slightly coloured with iris pigment.

A second sample of blood had been submitted, and the report stated that there was undoubted evidence of streptococcal infection, and advised a second injection. This was accordingly done, but it caused a rise of temperature and upset the patient generally, without producing any particular benefit. The patient remained in the home for three weeks, and had all his teeth removed, the majority of which were found to be the seat of alveolar suppuration at their roots. A scraping taken from the root of one failed to grow any micro-organism whatever. I saw him finally on May 23rd and could find but very little trace of the recent trouble. The pupils were equal and active, there was not the merest spot to be found anywhere on the lens capsule or cornea of either eye. There was, however, some vitreous haze in the right eye, close behind, if not on, the posterior surface of the lens at its nasal side, and in the left all over the posterior pole, but in both eyes it was little more than a veil.

Since this case came under my notice I have received Darier's latest work, "Ophthalmic Therapeutics," and in it he makes the following statements:—

The anti-diphtheritic serum is the only specific serum that has been recognised in ocular therapeutics. At present we possess few sera the action of which is really specific. Meanwhile, ought we not to find out whether certain serums do not possess, in addition to their purely specific action, therapeutic properties that may be utilised in infections of a less serious nature or that have some analogy with the specific infections.

This case seems to show that certain antitoxic serums, even if they do not possess specific action, have marked therapeutic properties of liquefying and aiding absorption of the exuded lymph. Whether the good results were in any way due to the previous use of salicylates or not this one case cannot prove. It, however, proves the utility of antitoxic sera, as without it the case could scarcely have made such rapid and astonishing progress. Another question, which seems of interest is whether the case was really one of the manifestations of so-called rheumatism of streptococcal nature. The fact that the salicylates relieved the intense pain seems to support this idea. One would be glad to have the views of bacteriologists and others on this case.

Manchester.

A CASE OF SYPHILITIC NECROSIS OF THE CERVICAL VERTEBRÆ.

By F. X. J. CALLAGHAN, M.B., B.CH., D.P.H. R.U.I.,
SENIOR PHYSICIAN TO JERVIS-STREET HOSPITAL, DUBLIN.

THE patient, a female aged 23 years, was admitted to hospital on August 17th, 1910. In 1906 she had contracted syphilis. The primary infection was very marked, so much so that portions of the vulval and vaginal mucous membranes were destroyed. Three months later she had suffered from sore-throat and a "spotty red rash." She was not medically treated for either the primary or secondary symptoms. In June, 1909, the patient was treated in the out-patient department of Jervis-street Hospital, Dublin, by Mr. J. L. Keegan for an ulcer on the right side of the neck. The ulcer had healed readily under antisiphilitic treatment. In June, 1910, the patient began to suffer from pain in the neck and from difficulty in swallowing; she was treated for this condition in another hospital and obtained some temporary relief from an operation performed on her throat (the throat was approached from the side of the neck, not through the mouth). On August 17th she was admitted to Jervis Street Hospital by Mr. Keegan, who kindly placed her under my care.

On admission the temperature was 101° F., the pulse-rate 130, and the respirations were 30. The patient complained of severe pain in the head and the neck. The pain was relieved by supporting the head on the hands, and was intensified by movement. The head was held thrust forward, the chin being directed slightly upwards. There were extreme rigidity of the neck and tonic contraction of the sterno-mastoid muscles, the cervical glands were enlarged on both sides, there was marked tenderness on pressure over the

upper cervical vertebræ, and the pupils were obstinately contracted. The patient complained also of pain and difficulty in swallowing. I was unable to examine the condition of the throat, as the attempt to open her mouth at all widely caused her extreme pain. Except for rigidity of the arms, I found no other signs of irritation or compression of the cord or nerves. The heart and lungs were normal. The symptoms pointed to pressure on the cervical portion of the cord, and a diagnosis of gumma pressing on this portion of the cord was made. The patient was given 10-grain doses of potassium iodide with 1/16th grain of perchloride of mercury three times daily, and was kept as quiet as possible. Though unable to swallow solids, she could swallow fluids in small quantities. On August 19th the patient stated that she felt something sticking in her throat, "something which felt like a piece of bone." The throat, however, could not be examined owing to the extreme pain which the necessary manipulations caused. Later in the day the patient coughed up a large piece of bone, which on examination proved to be the greater portion of the body of one of the cervical vertebræ (probably the third), the upper and lower anterior borders and the upper articular surface of the body being plainly shown on the fragment. Another fragment, apparently a

Reproduction of a photograph of necrosed fragments of cervical vertebræ.

portion of the body of the second, was coughed up some hours later. From this date the patient improved rapidly. The pain and difficulty in swallowing disappeared, but the rigidity of the neck persisted to such a degree as to suggest ankylosis of several cervical vertebræ. She was allowed to get up in ten days' time and when last seen (November, 1910) presented no abnormal sign or symptom beyond the cervical rigidity. She now wears a metal support for the chin and occiput attached to a jury-mast, and is thus protected from the disastrous consequences which would ensue were her neck suddenly bent forwards; the support also removes some of the weight from the weakened vertebræ.

The measurements of the larger fragment were as follows: Greatest transverse diameter, 2.1 cm.; vertical diameter, 1.3 cm.; and antero-posterior diameter, 1 cm.

The case was apparently one of syphilitic necrosis of a portion of the cervical vertebræ, followed by the formation of a sequestrum which was subsequently extruded through the posterior pharyngeal wall and so coughed up. I think the rigidity which is now present is due to the formation of new bone welding together the bodies of the upper cervical vertebræ.

Reference to the literature of the subject shows that syphilitic necrosis of the vertebræ is a rather rare condition; it usually affects the upper cervical vertebræ and begins in the anterior portion of the bodies. It starts as a periostitis which is followed by death of a portion of bone; a rarefying osteitis now takes place at the junction of dead and living bone, and so a sequestrum is formed. Subsequently the periosteum may form new bone.

As to the diagnosis, syphilitic necrosis may give rise to all the clinical features of tuberculous caries, but the onset in the former is more sudden and the progress more rapid. In most cases valuable information is obtained from the history of the patient, the presence of other evidences of syphilis, and by noting the effect of antisyphilitic treatment.

I wish to thank Mr. Keegan, surgeon to the hospital, for kindly allowing me to publish this case.

Dublin.

PORTAL PYÆMIA AND HÆMORRHOIDS.¹

By DAVID A. ALEXANDER, M.B., CH.B. VICT.

THE subject of the following account, a master workman, was at the time to which it refers (February, 1910) in appearance and form in the prime of physical manhood. The family to which he belonged, a numerous one and widely scattered, exemplifies in its various branches the usual morbid diatheses. One of his children is distinctly oxycephalic. In himself the only constitutional peculiarity to be noted was blanching or empurpling of the fingers and hands—that local asphyxiation which culminates in Raynaud's disease. I had previously attended him in September and in November, 1909, for attacks of which he had had a succession during recent years. With sudden abdominal pain in the right lumbar and iliac regions, tenderness, nausea, and dysuria, they suggested to me the passage of a renal calculus, being similar to those in another patient whom I was simultaneously attending, and in whom, without the confirmatory proofs of blood in the urine or the testicular direction of the pain, the symptoms at last abated with the expulsion of several small stones. There was no rise of temperature that I discovered during these attacks; they did not last long; the patient kept his bed for a day or two, and then resumed work.

On Feb. 16th, 1910, when I saw him, he had been seized with pain in the night on the right side of the abdomen as before, but there was now an area of tenderness and resistance in the appendicular region, and he had a temperature of 100° F. On the third day these symptoms were subsiding. But the patient did not, as on former occasions, quickly recover himself; he kept his bed, with an air of weariness, which left a misgiving as to his real condition. On the 21st a gangrenous odour was perceptible, which investigation showed to be due to a sloughing hæmorrhoid. The patient then stated that he had long been subject to piles, and that they had occasioned him no small inconvenience. The pile occupied the right side of the anal ring, was as large as an almond, and had prolapsed from within. It quickly sloughed off, leaving a tender area within the anus. There now appeared no reason to expect a delay in convalescence; there was no abdominal pain or tenderness. Temperature was absent, the pulse was steady, and the patient was quiet. I did not think him morbidly apathetic. Shortly, however, an icteric tinge was visible in the eye and skin, and bile appeared in the urine. The patient's wife also reported that he had had "shakings" in the night, the significance of which statement I overlooked and regarded the jaundice without apprehension. On the 26th, ten days after the onset of illness, going in at 9 A.M. I witnessed a rigor. It was impressive in its severity. The patient became deeply cyanosed; his teeth chattered; he shook; the bed shook; his temperature rose to 105.5°, the pulse-rate to 120; he was in great distress for 15 minutes, then began to perspire, and regained composure, but was much exhausted.

At this juncture he was seen with me by Mr. T. Carwardine. It was clear that we had to do with a virulent infection the seat of which was to be located or removed. Looking over the past history, it was very doubtful whether the earlier attacks were renal. So far, only bile had been found in the urine. The local signs of appendicular mischief were not in evidence, some pain only being elicited by deep pressure in the right loin. There was a little flatulent distension of the abdomen, but no hepatic tenderness or increase of dulness or splenic enlargement. Of typhoid infection, recent or remote, there was no proof. The breath had an acetous odour. There remained the anal area and the site of the sloughed pile. Here the canal was found to be still tender to the touch, bleeding slightly. The rectum, considerably ballooned, presented on the right side some resistance to the examining finger as though the walls were thickened. Nothing comparable to an abscess sac was encountered. It seemed reasonable to consider the anus as the site of infection, to attribute the pain to phlebitis in the portal veins, and in the icterus to see proof that the liver was already invaded. This was not a condition for operative intervention and only

¹ A paper read at a meeting of the Bristol Medico-Chirurgical Society.