clamp open to 2 inches; put up the broken limb as usual. July 29th. Firm union in the bones; limb perfectly straight. August 8th. Fractured and straightened his right leg in the lower third in the same manner as the left. October 8th. Discharged; deformity quite cured.

B. N. (a patient of Dr. Ashley Cummins), aged 2 years; right knock-knee. August 21st. Under chloroform Dr. Cummins fractured her right femur 2 inches above the knee-joint; the arms of the clamp were open to 3 inches; put up the limb in the usual manner in a curved long splint. October 1st. Discharged; deformity cured.

E. B., aged 1½ year; angular deformity of left radius and ulna, of which no satisfactory history could be given. September 9th, 1889. Fractured radius and ulna quite close to the wrist-joint, using the steel wedge; arms of clamp open to 2 inches; straightened the limb and put it up in side splints. October 10th. Bones united; limb quite straight; discharged cured.

C. B., aged 1½ year; double bow-legs. November 21st, 1889. Fractured his right leg in the middle third; having straightened the limb, put it up in side splints. November 24th. On opening the splints, could find no mark whatever of the pressure; there has been no pain. December 8th. Right leg quite firm; assisted by Surgeon-Major Walker, fractured his left leg in the middle third to-day. December 31st. No pain; doing well. January 7th, 1890. Left leg quite firm; his limbs are quite straight.

N. M., aged 9 years; double knock-knee. November 29th, 1889. Made six attempts to fracture her left femur, but failed; owing to a flaw in the hinge of the clamp it sprang and opened; there was one slight skin wound one-eighth of an inch in diameter, and very considerable bruising of the muscles; during the day there was some serous oozing from the wound; the limb was enveloped in cotton-wool and a splint applied. November 30th. Passed a good night, no pain or fever, very little oozing from the wound; the limb is but slightly swollen. December 1st. No discharge, wound quite closed, no pain or swelling, and no injury to the knee-joint. December 8th. Put her under ether, and with a new and stronger clamp, the arms of polished steel being separated 4½ inches, made one attempt to fracture her right femur and failed; the second attempt, with the arms opened to 5 inches, succeeded, and the bone broke with a loud snap; no skin wound, and but little bruising; enveloped the limb in Gamgee tissue and applied a curved long splint. December 13th. There has been no constitutional disturbance and no pain; on opening the bandage, the fracture is doing well. January 25th, 1890. Femur has united in good position. January 28th. Having administered an anæsthetic, the clamp, with the arms opened to 5 inches, was applied to her left femur; the bone fractured with a loud report 3 inches above the knee-joint; there is no skin wound; time of pressure 25 to 30 seconds. March 7th. Left femur united, with a slight out-curve; she has had little pain and no constitutional disturbance; the result of the two operations has proved very satisfactory.

K. A., aged 14 years and 9 months; double knock-knee; deformity very great. December 28th, 1889. Under ether applied the clamp to her left femur, the wedge 3½ inches above the knee-joint, the arms of the clamp opened to 6 inches. In 30 seconds the bone slowly yielded, breaking with a loud snap. Put up the limb as usual in a curved long splint. December 29th. Temperature normal; free from pain. February 5th, 1890. Bone has united without any trouble. February 22nd. Under ether to-day applied the clamp to her right femur. In the first attempt, with the arms of the clamp opened 6 inches, the bone only slightly yielded. The clamp, with the arms opened to 7 inches, was again applied. There was very considerable resistance, but the bone slowly separated. There is no skin wound. Applied a curved long splint to the limb. February 28th. There is but one bruise, the size of a shilling; girl doing well.

E. J., aged 6 years; double knock-knee and anterior curvature of both legs. January 16th, 1890. Under chloroform, fractured her left femur in first attempt, arms of the clamp open to 4½ inches. Put her thigh up in a curved long splint in the usual manner. The clamp, with arms open to 4 inches, was applied to her right leg, the bones were broken in the lower third, the limb straightened and an iron back splint applied. January 16th, 10.30 p.m. On account of pain opened and examined her leg; at the points of pressure, where the clamp was applied, there is nothing to be seen but a slight redness. Reapplied the splint. February 21st. The broken limbs have united without

trouble. February 22nd. Under ether treated the right femur in the same manner as the left; also rectified the deformity of her left leg. February 28th. Child doing well; no pain since operation.

J. R., aged 2½ years; both legs badly curved in the middle third. March 9th, 1890. Under chloroform, the arms of the clamp being open 2½ inches, fractured his left tibia and fibula. Having straightened the limb, applied side splints as usual. The clamp was then applied to his right leg, and it was treated in the same manner as the left. March 12th. Doing well.

I have to acknowledge the cordial co-operation and assistance I have received from my friend and colleague, Dr. Ashley Cummins, in treating the greater number of these patients.

RHEUMATIC NEURITIS AND NEURO-RETINITIS.

By N. C. MACNAMARA, F.R.C.S.,

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In a paper published in the JOURNAL of March 8th I referred to the connection which appears to exist between optic neuritis and malaria, my idea being that whatever the nature of the cause which produces malarial fever, it is capable of fixing itself on the tissues constituting the distribution of the second nerve, and unless effective measures are taken to counteract its poisonous influence it may lead to the destruction of the optic papillæ. I gave the outline of four cases in which both optic papillæ were simultaneously affected, but double optic neuritis is by no means the rule in instances of this description, for I have seen papillitis in several such cases confined to one eye. The course of these cases of malarial monocular neuritis bear a close resemblance to those of rheumatic papillitis; in the one set of patients the inflammation of the peripheral distribution of the nerve commencing in a person who for the time is under the influence of the paludal poison, while in the other he is under the influence of something which causes rheumatism. It is almost unnecessary to observe that optic neuritis, the result of intercranial disease, as a rule appears nearly simultaneously in both eyes. It by no means, however, follows that double optic neuritis is never met with unless in cerebral affections; in fact, as I mentioned in my former paper, in cases of malaria, in neuritis connected with uterine affections, and in syphilitic papillitis, as well as in Bright's disease, both discs are commonly affected. It has been suggested that the effusion and subsequent papillitis of malaria might depend on intercranial effusion, or perhaps from heightened arterial tension, consequent on the ague fit; but, in two out of the four cases referred to, the papillitis did not appear during or immediately after the ague; there were no symptoms of effusion on the brain. Moreover, if the neuritis had depended on temporary alteration in arterial tension, it would probably have cleared up with the removal of the cause which had produced it, in place of remaining for weeks after the ague had disappeared.

The following is a well-marked case of rheumatic papillitis, brought under treatment at an early stage of the disease: J. B., aged 16, the son of a rheumatic mother, the lad having himself suffered from acute rheumatism when he was 9 years old; the attack, however, passed off without leaving any evidence of cardiac disease, and, although subject to muscular rheumatism, the lad had been sent to school, and appears to have enjoyed good health. On March 20th, 1889, he was seized with violent pain in his right eye, and, on the following day, his medical attendant, finding he was blind with this eye, ordered him to be sent home at once. I was called to see the patient on the afternoon of the 21st; there was then only perception of light in the right eye, which was extremely painful. The pain was increased on pressure, or by movement of the globe. There was deep sclerotic infection and great photophobia, but no increased tension. Atropine had been applied, and the pupil was dilated; the optic disc was completely obscured by dense effusion, which had extended into the vitreous and the retina. The veins were much congested. I ordered half an ounce of salicin to be divided into twelve doses, one to be taken every three hours; four grains of hydr. c. cretæ and five of rhubarb, to be administered at bedtime, and a saline purgative in the morning; low diet, and rest in bed. In twenty-four hours the pain in the eye was much relieved, and still more so on the following day, when the dose of salicin was diminished by one half. On March 29th the congestion of the eye had almost

disappeared, and the boy could count fingers with right eye. J. B. continued steadily to improve, iodid. of potassium having been substituted for the salicin, the optic disc cleared although it remained white. When I last saw the patient, on May 4th, he could read 0.6 of Snellen with the right eye; he was then returning to school.

The following case seems to demonstrate the importance of prompt treatment in instances of rheumatic papillitis. Miss —, a robust young woman, who had enjoyed excellent health; she belonged to a rheumatic family; her father, in particular, had suffered much from rheumatism. The patient was seized with persistent pain in the muscles of her neck and left arm, which lasted for some three weeks, and was stated to be of a rheumatic character by her medical attendant. Miss — had hardly recovered from this attack when, about the middle of December, she experienced great pain in her right eye; there was much photophobia, and the pain was increased by pressure on, or any movement of, the globe of the eye. Notwithstanding these symptoms and great impairment of vision, the patient for ten or twelve days remained under the treatment of a chemist, who prescribed a lotion. No improvement having taken place, Miss — then consulted her medical attendant (on January 1st), and he at once pronounced the disease from which she was suffering to be neuro-retinitis; he sent the patient on to me. On January 3rd I found that Miss — could hardly distinguish light from darkness with the right eye; the optic papilla was much swollen (about 3 D), and its outlines were completely obscured; the retinal veins were much engorged. There was no albumen in the urine, no trace of hereditary disease beyond the rheumatism. The patient was ordered salicylate of soda and iodide of potash, with careful diet and saline purgatives. The pain in the eye and photophobia diminished rapidly under this treatment, but the vision cleared very slowly, and at the end of two months the patient could only just make out the letters of Snellen 5 with the right eye; the optic disc was of a dead white colour. Although the sight in this case will improve, nevertheless the fact of acute neuritis having existed for twelve days and upwards before she came under treatment makes the prognosis serious, because, during that time irreparable damage was probably effected in the delicate structures concerned.

It would be easy to multiply cases of this description from my own notes and from those of other surgeons, and it is remarkable they should have been almost overlooked until M. Parinard drew attention to them in his article published in the Report of the French Ophthalmological Society for January, 1884. In the majority of such cases the patient's history points to inherited rheumatism, and he has himself suffered from this disease; exposure to damp and cold is generally described as the direct cause of the attack of pain in the eye and the loss of sight. The pain in these cases is stated by the patient to be deep seated in the orbit, and to extend from thence over the forehead and side of the head; it is worse at night, and is increased on pressure applied over the globe of the eye; dimness of vision and frequently total loss of sight is present, together with conjunctivitis and sclerotic congestion. The appearance of the inflamed papilla differs in no respect from that produced by malaria or other causes, and although we seldom meet with double rheumatic papillitis, it is not uncommon to find first one disc and then the other involved in the disease. After the inflammation has passed away, although the patient's sight may be restored, the optic disc assumes a whiter appearance than that of a healthy eye.

When discussing the subject of malarial neuritis, I referred to a form of ulceration of the cornea described by Dr. Kipp, Dr. von Millinger, and other authorities; and we meet with affections of the cornea which likewise appear to be connected with rheumatism, the ulceration, like that of malaria, being produced by a fault in the functions of the nerves supplying the cornea. This kind of corneal ulcer is described by W. Mackenzie, in his admirable treatise on *Diseases of the Eye*. He states that among rheumatic patients, especially those advanced in years, after exposure to cold it is not uncommon to find one of the patient's eyes affected with "a peculiar kind of ulcer—which is apt to spread over the surface of the cornea—at first it looks as if a portion of the surface of the cornea was loose and raised up, apparently through the intervention of fluid: the ulcer often cicatrises without leaving any opacity, the cornea remaining merely irregular, as if part of it had been hacked off with a lancet; vision is disturbed by altered refraction." In these rheumatic affections of the cornea, as in the case of neuritis, we have a history of rheumatism and of

deep-seated pain, usually worse at night, and increased by pressure or by movement of the globe; the epithelial layers of the cornea become detached by the effusion of fluid beneath, which, as in herpes, is the result of faulty nerve action; the ulcer extends slowly, and if allowed to run its course may last for weeks; but if treated by salicine, and subsequently with iodide of potassium, the pain and other symptoms speedily subside. The local application of a solution of eserine to the eye is often of service in cases of this kind. The patient's bowels must be kept freely open and his diet carefully attended to. And so in instances of rheumatic optic neuritis, if treated by the means above referred to the papillitis disappears, and the patient in all probability will recover his sight; on the other hand, if neglected, or if the disease in spite of treatment continues, atrophy of the optic papilla and permanent loss of sight too often result. In such a case the other eye will probably, sooner or later, be affected with papillitis of a similar character.

EPITHELIOMA PRIMARILY AFFECTING THE TONSIL.

By J. WALKER DOWNIE, M.B., F.F.P.&S.G.,

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EPITHELIOMA primarily affecting the tonsil is comparatively rare, as may be inferred from the fact that many of our textbooks on general surgery either wholly omit mention of such a condition, or it is but vaguely, and in a few words, referred to as a possibility.

Of the references to this disease by specialists the following may be quoted: Dr. Prosser James, in his work on *Sore Throat*, p. 242, says that "cancer very rarely begins in the tonsils, though it spreads to them from neighbouring parts. Dr. Gibb, in his manual of *Diseases of the Throat and Windpipe*, published 1864, at p. 351, says, "If cancer affects the tonsil, it is usually by extension from some other part of the throat; but I had the opportunity of examining a case of idiopathic cancer of the left tonsil in a man, aged 49 years, in October, 1859, under Dr. Marsden's care at the Cancer Hospital. It was eaten away by the disease, forming a large excavation in front of the left pillar of the fauces. The disease was hereditary in him. Cancer commencing in the tonsil primarily, is a very rare affection." Sir Morell Mackenzie, in his work on *Diseases of the Throat*, vol. 1, p. 83, remarks that "cancer of the tonsil is a rare disease," and that "most of the reported instances belonged to the encephaloid variety." Mr. Lennox Browne, in his *Diseases of the Throat and Nose*, p. 245, says that the "primary epithelioma of the tonsil is, although rare, not unknown, and three cases have occurred in my own practice during the past twenty years," being, according to his calculation, about 1 in every 20,000 cases of throat disease.

The patient who forms the subject of this communication is a clerk, and 45 years of age. Eight months ago, that is, in August last, he had an itching pain in his left ear, which at the end of a month was accompanied by pain in the region of the left fauces. The pain in the throat increased gradually in severity, and was aggravated by swallowing—the pain shooting sharply up towards the left ear during the act of deglutition.

When I first saw him early in February, the glands beneath the angle of the jaw on the left side were enlarged and slightly painful to touch. The surface of the left tonsil was ulcerated, and the edge of the ulcer had just begun to include the edge of the anterior pillar. The advancing surface of the ulcer was elevated, hard and indurated to the touch, and slight manipulation of the part caused bleeding. Since that date it has rapidly advanced, the whole of the anterior pillar is now involved, so that we have the outer edge of the ulcer extending from the junction of the anterior pillar with the tongue, on to the tip of the uvula. Of the nature of the ulcer I think there can be little doubt, and none whatever regarding the impossibility of surgical interference.

Whether it is that cases of malignant diseases are becoming more numerous or not, I know not, but during the past three years I have had other two cases of primary epithelioma of the tonsil, both affecting the right tonsil, and both occurring in men. One was a patient at the throat department of Anderson's College Dispensary, and he died under the care of the physician in charge of the outdoor visiting department. The other was a gentleman 58 years of age, and under the care of Dr. Watt, of Ayr. In this