finding lodgment on the valves. Here they produced vegetations some of which by embolism were carried to the various organs affected, including the brain and spinal cord. Such distribution of the diphtheria bacillus is thought to be extremely rare. Indeed, *malignant* endocarditis is an extremely rare complication of any of the usual infective fevers. Cerebro-spinal symptoms in association with malignant endocarditis have been observed, of course, but I am not aware that the diphtheria bacillus has been demonstrated as the infecting organism in any recorded case previous to the present communication. If any such cases have been recorded previously the rarity of the condition appears to me to justify the present record.

Southend.

A CASE OF DOUBLE OPTIC NEURITIS; SYMPTOMS OF CEREBELLAR TUMOUR; COMPLETE RECOVERY.

By CHARLES HIGGENS, F.R.C.S. ENG.

A BOY, aged six years, was brought to see me on May 22nd, 1894. I was told that it had been accidentally discovered that he could not see properly and that six weeks before his sight appeared to be perfect. He could distinguish none of the test types. In his right eye the optic disc was swollen and its outline was blurred. The left disc was red but its outline was well defined and it was not swollen. He had some nervous symptoms resembling chorea; there was no albumin in the urine. I advised that he should consult a physician and did not see him again at that time. Two years later, on June 9th, 1896, I saw the patient's mother, who told me that he became quite blind but began to recover slowly and eventually got quite well. On Sept. 19th, 1904, I saw him again. He was myopic and I thought that his discs were rather pale. His vision was:—

Right eye $\frac{6}{36}$ c - $\frac{75 \text{ cyl. } 6}{2 \text{ sph. } 6}$; left eye $\frac{6}{36}$ c - $\frac{75 \text{ cyl. } 6}{1.50 \text{ sph. } 6}$.

I saw him again on May 8th, 1907. He was a tall well-set-up fellow of 19 years and appeared to be perfectly healthy. His discs were rather pale; his myopia had increased by 1 D. but his vision was $\frac{6}{60}$ with correcting glasses and both fields were normal. He told me that after I saw him in 1894 he was taken to Dr. Ferrier. I wrote to Dr. Ferrier and asked him if he would look up his notes of the case and let me know what he made of it, and he very kindly wrote to me as follows: "I first saw the boy in May, 1894; he then had double optic neuritis, more marked in the right eye, and some symptoms of cerebellar disease. In July of that year the cerebellar symptoms were marked, but the neuritis had disappeared and the discs were somewhat pale. He could only read J. 20. In March, 1895, his vision was $\frac{6}{12}$. He appeared otherwise well. My diagnosis was cerebellar tumour? Might it be a tubercular nodule which has become cretified?"

Remarks.—The duration of the boy's illness appears to have been under 12 months; as far as was known he was quite well six weeks before he saw me in May, 1894, and from Dr. Ferrier's report he had quite recovered by March, 1895; his vision being only $\frac{6}{12}$ was probably accounted for by a low degree of myopia.

The case is interesting chiefly on account of the complete recovery which took place; my experience of similar ones is that they almost invariably go blind and that some of them die, though often years after the appearance of the first symptoms. The patients wander about from hospital to hospital, or from one medical man to another, blind and staggering, and it is rare for the surgeon or physician who first sees them to see the end of them. I have been in the habit of pointing out blind staggering children and calling them cerebellar children, and in one or two cases in which I have seen a necropsy tumour in the cerebellum was found. In the case reported Dr. Ferrier's suggestion that it might be a tuberculous nodule which has become cretified is probably correct, but there is the possibility of congenital syphilis, though the patient shows no signs of it and I have not gone into the history.

Treatment, so far as I know, does no good, but one has to do something and if a case recovers under any kind of treatment so much the better. I have trusted mainly to mercury and iodide and in two cases have trephined with very marked relief, which was, however, only temporary, and the last time I saw the patients they appeared to be neither better nor worse for the operation.

Brook-street, W.

A CASE OF LAND SCURVY

OCCURRING IN A PATIENT AFTER A PROLONGED PERIOD
AS AN IN-PATIENT IN A HOSPITAL AND AS A COM-
PLICATION OF A FISTULA IN ANO.

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WHAT is the determining factor in the etiology of scurvy as yet remains a problem of medical science. Whether the theory of chronic ptomaine poisoning or whether that of dietetic error be the truth is undecided by those who have studied the subject especially, evidence seeming to be equally strong for both. Experimental information resolves itself into two classes, that resulting from laboratory work proper and that gleaned from the logbooks of Arctic and other expeditions. The experiments of Harley and Jackson consisted in the feeding of apes with scorbutic and anti-scorbutic diets. Their results seem to be mitigated by the following facts: (1) that monkeys are not naturally carnivorous; (2) that the tinned meats used were allowed to become tainted after preservation and not before, as is the case of the doubtful canned food found in the cheapest shops or in marine stores; and (3) that the digestive economy of the lower primates seems to be capable of dealing with putrescent food.

Briefly, the evidence derived from the reports of travellers during the past six years is as follows. 1. Dr. Koettlitz, who accompanied both the Nansen and the British National Antarctic Expeditions, reports in reference to the latter that there was very considerable trouble from disablement of the crew from scurvy, notwithstanding the fact that limejuice occupied a prominent position in the rations served out daily. It was found out on investigation that the preserved meat supplied for the expedition was not beyond reproach. 2. The Jackson-Harmsworth Arctic Expedition yielded some interesting facts. When the relief ship reached them it was with the intention of getting back before the ice closed. In this they were unsuccessful and the vessel with her crew remained 12 months. The men who were encamped on the ice lived during this year, as they had for many months before, upon fresh bears' meat, taking no limejuice; they escaped any attacks of scurvy. Those who remained on the ship, refusing bears' flesh, chose to consume canned goods, often in an unwholesome condition, and notwithstanding the fact that a limejuice ration was served out daily, in the course of the year, all suffered and two died. 3. When Nansen and his companion Johansen left the *Fram* in their attempt to reach the Pole by sledge they were away 15 months, during which they existed entirely upon the flesh which fell to their skill as hunters and endured terrible hardship and toil, despite which they returned hale and whole.

In deducing from such statements as these it must be borne in mind that limejuice varies in quality and that the good intentions of the medical man in charge may have been rendered abortive by a sailor who disliked limejuice.

Such is the evidence of the ptomaine theory; evidence equally strong can be rallied upon the side of the dietetic supposition. 1. In 1795 Sir Gilbert Blane introduced a limejuice ration into the navy's diet-sheet, with the result that scurvy, which had been very prevalent, became comparatively rare. It was, however, pointed out by Aitken in 1872 that Blane at the same time greatly improved the food generally. 2. Lieutenant-Colonel Hamilton reports the following.¹ In 1885 he was in charge of the 23rd Pioneers, a Sepoy regiment, during an expedition among the hills of the northern frontier of India. Owing to the roguery of the native contractors the supply of vegetables arranged for failed. After a few weeks, in spite of the fact that fresh meat was abundant, scurvy showed itself among the troops. A small green cruciferous plant, found growing upon the hills, was then used as a spinach, with the result that rapidly the scurvy disappeared. 3. Dr. F. C. Sinclair in medical charge of a guano expedition to Walvisch Bay, S.W. Africa, states that his 400 Damara natives remained free from scurvy whilst the supply of freshly killed meat was good. His cattle, however, were carried off by rinderpest. The diet then consisted of peas, wheat-meal, porridge, rice, bread, biscuits, tea, and coffee, all sound food. In two months scurvy was prevailing among the negroes,

¹ Brit. Med. Jour., October, 1902.