rectum is emptied fairly soon after it is filled. Comparative studies of the ecology of the constipated and normal intestine would, I think, reveal a very different flora.

The "climax association" (as I think the ecologists call the most permanent partnerships of living things*) in severe types of chronic constipation may show a haemolytic streptococcus dominant and thus explain the anaemia. Other bacteria in the small gut may be engaged in fermentation of kinds which do not go on in health. To that extent there still may be truth in the old idea that amyloaceus dyspepsia may be due to fermentation, even though the stomach itself be exonerated.

To reverse the diet from the civilized prepared cereal food to the polite equivalent of an uncivilized diet is a great means of health to such people. But they cannot wait, and medicines may give quicker relief. The best I have found is iodine and cajuput:

R. Tr. iodi ...	...	...	...	...	...	mx
Ol. cajuputi ...	...	...	...	...	...	mij
Mucilag. ...	...	...	...	...	...	q.s.
Aquam ...	...	...	...	...	ad	3j

Sig.: t.d.s.; 10' a.c.

Its action seems best explicable on the theory that some of the symptoms are produced by fermentation. A laxative will be required for a time, such as the popular emulsion of paraffin with agar and phenolphthalein, but only for a time.

CAVERNOUS SINUS THROMBOSIS WITH RECOVERY.†

BY

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CAVERNOUS sinus thrombosis is comparatively rare and all authorities describe it as a fatal condition. Parsons¹ says "the patient always dies." McCallan,² opening the discussion at the Ophthalmological Society of the United Kingdom last year on the diagnosis and treatment of inflammatory affections of the orbit, refers to it as "this fatal affection." The most favourable views I have found are Posey's,³ "barely 7 per cent. of cases recover," and Collins and Mayou's,⁴ "if the clot be septic death usually follows, but in aseptic cases the patient may live; the exophthalmos continues, optic neuritis with atrophy following."

Most authorities, I believe, base their conclusions on their study of the condition in European patients. The wonderful powers some South African natives have of resisting certain infections may account for the survival of the patient whose case is now to be described.

A Kafir woman, aged 30, the mother of seven healthy children, was sent to me by Dr. Ella Britten on August 18th, 1922. She was thin, weak, and flabby, with quick pulse, and had her year-old baby with her—still at the breast.

The history she gave me—and I must emphasize the vagueness of the native where exact dates and figures are concerned—was that her eyes were perfectly well until shortly after this last baby's birth. The confinement had been severe, and recovery long delayed. Pain began in the left eye with headaches; the eye got red and very large, and pain was also felt behind the left ear. Dr. Britten saw her when this left eye was proposed—a most valuable observation as regards subsequent diagnosis. The patient says this condition lasted some months, and then the right eye went through changes similar to those of the left, while the latter decreased in size. Eye pain and headaches were also similar.

On the date of her first visit the right eye was proposed directly forwards to the extent of three-quarters of an inch. Chemosis was so marked as entirely to conceal the lower lid. Conjunctival congestion was trifling and limited to the upper part of the bulb. The ciliary vessels showed no fullness. The cornea was exposed fully, but three-quarters of its surface could be covered on effort. It was hazy and oedematous but still bluntly sensitive, and gave a mottled staining with fluorescein. The pupil was semi-dilated and insensitive to light. Tension was

soft—17 mm. Schiötz. The eyeball was fixed and could not be moved by effort. The media were clear, allowing for corneal haze. The disc was somewhat pale. The field of vision was diminished between the macula and nerve-head. Right vision: 6/36; c. + 2.00 sph. = 6/24. Left vision: able to count fingers at 6 feet.

The left eye seemed fairly normal, though deviating upward and outward. No inward movement was possible beyond the mid-line, and fixation was difficult and transient. The pupil was

enlarged and very sluggish even to strong light. The media were clear. The disc was pale on the temporal side; its edges were sharp, and its vessels were not enlarged. The tension was normal. No bruit was complained of or listened for over the frontal region. She was ordered a simple boric lotion, the cornea being protected by a pad and bandage over boric ointment.

On August 28th the proptosis was less. The cornea was clearer and could be entirely covered by the upper lid. A photograph was taken.

On September 4th there was slight movement up and down of the right eye. The conjunctival chemosis was pricked and sanious fluid let out, which considerably lessened the proptosis.

On September 9th the condition was as before; the conjunctiva was again pricked with good result. On this date the patient was shown at a British Medical Association meeting and agreement was expressed with the diagnosis.

Five days later she began taking a mixture containing potassium iodide in moderate doses, and at her next visit, on September 20th, she looked and felt better. The proptosis now allowed a finger-tip insertion between the bulb and bony orbit above. Movement was increased in all directions. Her visual acuity remained unchanged. The potassium iodide in the mixture was reduced to 2½ grains in each dose, as signs of iodism were present.

I did not see her again till the following January. Though the eye had changed little in appearance, vision was now reduced to counting fingers at two feet. The field of vision also was much lessened. The cornea was dull and hazy, and it was impossible to make a detailed examination of the fundus. She said she felt stronger and better, but still complained of occasional pain in the eye region and the vertex.

It was four years later when I next saw her—February 4th, 1927. The right eye was now quite shrunken into the orbit, and, of course, absolutely blind. The left eye seemed just as at her first visit, both in appearance and acuity of vision. The field of vision was absent on the temporal side right up to fixation point. The disc was as before, but a speckled pigment area was seen impinging on its temporal edge.

In March of this year (1929) she came again. The general health had improved but the condition of the eyes remained unaltered. A photograph taken on this date (March 7th) shows a somewhat healthier and happier-looking woman. I may add that she now earns a little as a blanchisseuse.

However fortunate one may deem oneself in having seen any stage of this case, one must regret the absence of such opportunity in its early stages and before it was seen by Dr. Britten. The definite fact remains that the trouble began in one eye and then appeared in the other. This ensuing bilaterality, which occurs in most cases, has been insisted upon by authorities as a characteristic in distinguishing cavernous sinus thrombosis from orbital cellulitis—the affection most likely to simulate it. A simultaneous cavernous sinus thrombosis of both sides is well known in certain cases of sphenoidal air-sinus disease, the close proximity of these sinuses to the cavernous sinus affording an explanation. Immobility was no doubt due in part to paralysis of the ocular nerves, as they lie embedded in the cavernous sinus wall, and in part to venous congestion—all ophthalmic veins emptying into the cavernous sinus.

* For example, heather, Scots pines, and cross-bills.

† Read before a meeting of the Medical Association of South Africa (B.M.A.), April, 1929.

It is interesting to note the low tension of the right eye and to compare it with Foster Moore's⁵ observations on intraocular tension in cases of thrombosis of the retinal veins. He states that "in most cases of thrombosis of the central retinal vein the intraocular tension of the affected eye is appreciably less than that of the unaffected eye."

In speculating on the cause in the above case, one is handicapped by the late date at which medical advice was sought. Of the three usually assigned causes—infective, primary or marasmic, and traumatic—I think the first the most likely. It is suggested by the severity of the confinement, prolonged convalescence, and the absence of a history of any head, face, or ear lesion. Statistics also show that the great majority of cases of cavernous sinus thrombosis are of infective origin.^{6 7}

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PREVALENCE OF ENCEPHALITIS EPIDEMICA IN CHINA.

A CONTRIBUTION TO THE HISTORY OF THE DISEASE IN THE FAR EAST.

BY

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CRUCHET's latest contribution to the literature of encephalitis epidemica has aroused increased interest in the question of the origin of this disease, and since recently a writer published an article suggesting the possible introduction of encephalitis from China, it seems desirable that the data with regard to the history of the disease in that country should be carefully examined and more valuable material collected. I hope the following observations will serve this purpose.

When, in 1921, I returned to China I found encephalitis rather flourishing, and since that time I have observed cases everywhere in the northern, Yangtse, and southern provinces where I looked out for the disease. Encephalitis is nowadays not rare in China, although there are many medical practitioners, even in the large cities of the coastal districts, who have never seen or recognized a case as such. The fact that many medical men in China are still unfamiliar with the picture of encephalitis in my opinion accounts for the paucity of knowledge and documentary evidence of the disease in that country.

The first publication on the appearance of epidemic encephalitis in China was written by W. W. Cadbury,¹ who observed one case in Canton as early as August, 1919. In 1920 Judson² described two cases from Anhwei province, and Lennox³ another case which he had seen in Peking. Later, in the winter of 1921-22, two cases were reported by Wassell⁴—one from a hospital in Wuchang and another from Changsha in Hunnan. With the opening, in 1921, of a special neurological department of the Peking Union Medical College the opportunity for seeing a large number of neurological cases was given, and thus A. H. Woods was able to report on twenty-one cases which he had seen within the first year of the new institution's existence.

During my activities as neurologist at the Peking Union Medical College I made a special study of encephalitis, and the following report comprises my observations on a hundred cases seen during the period of two and a half

years (1923-25). The following are the places from which the cases came:

Peking	53	Shanghai	3
Peking (country) ...	13	Mukden	2
Tientsin	7	Chefoo	2
Peitaiho	4	Tsingtao	1
Foochow	4	Kalgan	1
Shansi	3	Chengtu	1
Paoting	3		
Nanking	3		100

As the list shows, more than half of the patients came from Peking or its immediate neighbourhood, most of the others from places situated at the coast or near the lines of railway traffic. Szechuan was the furthest interior province from which a patient was sent to us.

The earliest of our cases was a student who gave a reliable account of his disease, the onset of which he dated back to the beginning of the year 1919. For its historical interest the case might briefly be described here.

The patient, aged 25, states that when he was in Shanghai in March, 1919, he had fever for ten days, with dizziness and double vision, followed by sleepiness, which continued for several weeks. Since 1922 he has suffered from difficulty of speech, increased salivation, and involuntary movements of the head and hands. Clinical examination elicited the following signs: typical Parkinsonian posture and gait; myoclonus of the left sterno-mastoid muscle; tremor of both hands; dilated pupils, absence of reaction to light, and paresis of the rectus internus muscles; exaggerated tendon reflexes; negative Wassermann reaction.

Four other patients were admitted who had contracted the disease in the same year, one in July in Foochow, the rest in the autumn in Peking, Paoting, and Tai Yuan (Shansi). The number of admissions of encephalitic cases gradually increased from year to year, probably partly owing to the growing interest of the medical men who had sent these patients to us for further study. There were, in addition, small epidemics in Peking and its neighbourhood, such as in Peitaiho, a health resort at the seaside, where for several years regular outbreaks occurred during the hot summer months. The first cases at the latter place, of which I examined one myself in 1921, displayed rather fulminating symptoms. Four patients died in quick succession; in later years the character of the disease became much milder.

With regard to the season, the frequency curve shows that new cases appeared the whole year round, but, as also happened in other countries, a marked rise was noted, especially in 1923 and the following year, during the winter months December to March, which in northern China form the cold, dry season with dusty winds—the season of catarrhs of the respiratory tract. A second but slighter elevation of the curve set in with the beginning of the dry season in August. On this occasion it is interesting to compare the great outbreak of a special form of encephalitis in Japan in 1924, which occurred in a remarkably dry summer and abated with the onset of the wet season. Most of the patients were between puberty and middle age; the youngest was 5 months, the oldest 61 years of age. Among the 100 cases there were only 20 females; 82 were Chinese, the rest foreigners. Farmers were less affected than people leading a sedentary life; the highest incidence was among the students, with 27 cases; soldiers, who furnished the richest material in neuro-syphilis, were represented only by a single case.

The clinical picture of epidemic encephalitis is essentially the same as in Western countries, and the Parkinsonian type, which occurs in 35 per cent. of all cases, represents the largest group. The earliest appearance of Parkinsonian manifestations was noticed three months after an acute onset with fever, oculomotor symptoms, and lethargy. In most other cases about two years, or even a longer time, had elapsed between the initial symptoms and the first kinetic disturbances. Marked sleepiness was one of the most constant features in the history of this group. In some, especially in young patients, the akinesia reached a very high degree. Neglected by their family, emaciated to the bones, and motionless like a statue, these unfortunates would easily impress the people as beings possessed by some kind of evil demon.