

Urine light in color, shows a heavy mucous cloud; perfectly free from albumen.

27th November.—Dropsy much increased; suffers from intense dyspnoea after slight exertion; cellular tissue of penis, scrotum and abdomen very much swollen from œdema. He looks much weaker and more anæmic; complains of severe pains in thighs and of difficulty of breathing in recumbent position. The dyspnoea he refers to his throat, and is probably due to sub-mucous œdema of larynx.

Urine again examined:—copious deposit of lithates on standing; turns of a mahogany color on boiling with nitric acid, contains about $\frac{1}{3}$ th to $\frac{1}{5}$ th albumen. He died on 3rd December of œdema of the lungs and consequent apnoea. Unfortunately no *post mortem* was allowed.

This man had been a mess cook in the 44th N. I. up to the 15th October. I knew him to be a perfectly strong, healthy, active man, and, no doubt, he was well fed. He had lived in Shillong for six years, and said that he never suffered from ague; never was ill in fact until he got the present attack.

Case 12.—Was the son of preceding, a lad aged 17, a khidmutgar. I saw him the day before his death. The history of the case was much the same as that described in most of the preceding cases, *viz.*, sudden appearance of dropsy during a condition of apparent health. When I saw him he had been ill for a month; his body was then œdematous all over, and he was suffering from intense dyspnoea, and from pneumonia, which was rendered plain by profuse expectoration of rusty sputa.

Remarks.—I have seen several other cases of this disease, but the 12 mentioned above afford a sufficient description of the disorder. At first it appeared to me that the disease was confined to people who had recently visited the plains, and whose spleens and livers were more or less affected by their journey through the unhealthy terai. Next I thought it due to defective local sanitation. Again, as I met with no cases among the Khasias for some time, I concluded that the hardy hill people were exempt from the disease. But within the past few days I have seen one Khasia, an exceedingly strong man, affected with the disorder, and I have heard of others. A case has also occurred amongst the Goorkha sepoy of the 44th Regiment. As the lines of this regiment are about $1\frac{1}{2}$ miles outside the station, in a most healthy situation, supplied with good water, and as the men themselves are well nourished, hardy, active Goorkhas, and used to a hill climate, I had hoped that they would escape: but yesterday I saw one case amongst them, *viz.*, a Goorkha sepoy, who supposed himself to be in good health: but a few days ago he got a slight fever, and then noticed that his legs began to swell. This man, though he has not been in hospital for a couple of years, now looks distinctly anæmic and cachectic, and suffers from the same symptoms as the other cases.

With regard to the causation of the disease, when we consider that so many persons, living under different conditions and in places so widely apart, have been affected, we must, I think, come to the conclusion that it is due to some climatic influence. This influence is, in my opinion, to be found in the lateness of the rains in the

present year. As a rule the rains are over in these hills by the 15th October. This year we had heavy rain almost to the end of October and for some days in November. In fact dampness combined with cold would appear to me to be the prime cause of the malady.

I have heard that the disease is also prevalent in the plains at the foot of the hills. A native doctor, stationed at the outpost of Allynuggur in the Sylhet district with a detachment of the 42nd Regiment, remarks in his weekly return—"dropsy is very prevalent here."

With regard to treatment, as I have found the disease in almost every case, sooner or later, associated with a certain amount of anæmia very well expressed in some cases, I have regarded it as a blood disorder and treated it accordingly, *viz.*, with iron, acids, and quinine or cinchona febrifuge, combined with an occasional aperient of compound jalap in the morning. In the cases in which there was a scorbutic taint, lime juice and oranges, which are very plentiful and cheap at this season, have been prescribed. Meat and vegetable diet has also been enjoined. The legs have been bandaged with flannel.

The enlargement of the spleen, which was found in so many of the cases, would appear to have been an accidental complication, for it did not occur in all the cases; and in this part of the world enlarged spleen may be found as an accompaniment of almost every disease.

In each case I have carefully tested the urine several times for albumen, but in only one instance did I find any, *viz.* in Case No. 11, when the disease was far advanced. Thus the kidneys may be said to be unaffected, at least in the early stage of the disease.

Up to the present time I have not had an opportunity of carefully studying the clinical history of the disease from beginning to end, but now I have four cases in hospital, and several in their own houses, which I am carefully observing.

In the few cases in which I have been able to make thermometric observations, there has been a distinct rise of temperature at night, *viz.*, to 99.5 or 99.6°. In one case only did it rise to 100° F.

Shillong, 5th December 1878.

A MIRROR OF HOSPITAL PRACTICE.

A CASE OF TYPHOID LESION CONFINED TO THE LARGE INTESTINE, AND SOME REMARKS ON THE CAUSATION OF THE DISEASE.

By SURGEON J. O'BRIEN, M. A., M. D.,

Civil Surgeon, Shillong.

In reading through the *Indian Medical Gazette* of 1st November, received by me in Shillong on 6th November, I was much interested by the *P.M.* notes of 11 out of 18 fatal cases of enteric fever, which occurred in the 2/2nd Regiment at Bareilly, reported with much clearness and accuracy by Passed Hospital Apprentice J.R. Massey. Ten of the cases might be said to be typical examples of the true typhoid lesion. The last case was abnormal, and

especially attracted my attention, taken in connection with the observation made in the para. of remarks at the end of the article, viz. "The lesion in the ileo-cæcal valve in the last case was most probably a continuation of the disease from the large into the small gut. Dr. McConnell, Professor of Pathology at the Medical College, Calcutta, used to tell his class students in his lectures that the typhoid lesion may originate in, and be entirely confined to the large gut: but that more commonly it was an extension of the disease from the small into the large intestine."

For my own part I always regarded enteric fever, properly so called, as a fever characterised by a special anatomical lesion, viz. congestion, tumefaction and ulceration of the agminated glands (Peyer's patches) of the ileum. I have witnessed many cases of the disease amongst native soldiers and others in this province (Assam), and I have made *post mortems* in at least 12 cases, in which I found the specific anatomical lesion exactly corresponding to that found at home. In several cases the lesions were typical, and I sent specimens of them, in the different stages of the disease, to the Medical College Museum at Calcutta. I was accordingly rather surprised to see it stated that the disease could originate in or be confined to the large intestine.

A case, however, that came under my observation quite recently, would appear to have been undoubtedly one of enteric fever in which the intestinal lesion was confined almost entirely to the large gut. It was briefly as follows:—

Sepoy Sunman Chatri, 42nd N. L. I., æt. 23, returned to Shillong from two months' leave at Gowhatty on 9th October. He was very ill, suffering from fever and what appeared to be intense malarious cachexia, and was at once admitted into hospital. He was entered in the register as suffering from a rare, a disease which attacks almost all travellers between Gowhatty and Shillong in the rainy season. He stated that he had been ill for some 15 or 20 days prior to his return.

On the 16th October I took over charge of the case. His condition then was:—countenance of a muddy sallow hue, conjunctivæ slightly jaundiced, general appearance most unhealthy, and apparently indicative of the malarial cachexy; tongue coated and dry in centre; pulse over 100°, soft and compressible. He was exceedingly weak and depressed; his condition might truly be termed typhoid. He lay in a listless apathetic state, and made few complaints. He suffered from thirst, complete want of appetite, and occasional pain in the abdomen. The belly was lank and empty and no enlargement of liver or spleen could be detected. He suffered from diarrhoea—to the extent of 6 or 8 stools in 24 hours—of loose, yellow-colored, watery evacuations rather scanty in quantity. From first to last no dysenteric sloughs or blood were reported in the stools though they were examined frequently. The symptoms continued much the same, the patient growing weaker gradually, until his death, which was due to asthenia, on the morning of the 31st October.

A chart of his temperature for 10 days is appended. It fluctuated between 99° and 103.1°: but it usually ranged between 101° and 102° F. Towards the end, viz. from the 28th, the temperature of the extremities sank, and had to be maintained with hot bottles, &c.

A *post-mortem* was made in the afternoon of the same day, 12 hours after death. The body was greatly emaciated; brain not examined; thoracic viscera normal; lungs absolutely free from congestion. Liver deeply pigmented of a deep yellowish muddy brown color. The substance of the liver looked markedly greasy and fatty; its weight was about 3 lbs.

Spleen of little more than normal size—weight about 8 oz. The capsule was thickened and much wrinkled, showing plainly that the organ had been recently much enlarged. The substance was friable and pulpy and of a deep muddy purplish color. A thick prune juice like fluid could be scraped freely from its cut surface.

Small intestine.—The coats of this portion of the bowel, especially in the upper part of the ileum, were abnormally thin and anæmic. There was some congestion in the vicinity of the ileo-cæcal valve for a distance of about 2 inches; Peyer's patches, save the last one, which was involved in the surrounding congestion, were pale and normal.

The large intestine was the seat of a number of curious looking, raised, circular, ulcerating patches. These I regarded at the time as abnormal dysenteric ulcers. In my *P. M.* report, writing from what I saw, I described them as "several (about 20) raised, fungoid-looking patches of ulceration." They were of a buff color, varied in size from that of a shilling to a two-anna piece, were raised from one-tenth to one-eighth inch above the surrounding membrane, had everted slightly overlapping edges, and, in fact, reminded me at once of the 'infarcted' stage of the Peyerian patches in genuine enteric fever. At the junction of the ascending and transverse colon there was one patch—the size of a rupee—of a grey color from sphacelus. Perforation was imminent at this point. There was no thickening, and but very little congestion of the mucous membrane between the patches, which were chiefly confined to the ascending and transverse colon. The mesenteric glands were tumefied.

On the same day I had to make a *post mortem* of a case of dysentery. There was no mistaking the difference between the thickened, heavy, œdematous gut in the one case, with its mass of ulcers extending from the valve to the anus, gangrenous almost in the sigmoid flexure and rectum, and the thin rather anæmic appearance of the other with its curiously raised, buff-colored patches scattered at intervals throughout it. The lesion was unique in my experience, and I regret much now that I did not send a portion of the intestine to the Pathological Museum.

Remarks.—In the observations which preface the *P. M.* notes of the cases in the 2/2nd Regt. under the heading 'cause' it is stated "the apparent cause of the disease (though there may have been other undetected influences at work) was the influence of the climate on the men of the regiment, who being quite young and coming out to India quite recently, fell victims to the disease.....As regards the water supply there is no evidence to prove that the disease was due to any specific cause of contamination, and as to the sanitary condition of the station and barracks the reports are favourable."

These remarks, no doubt, embody the opinion of the medical officers of the regiment, and represent the exact condition of things as they appeared to these officers and to the other sanitary authorities of the station. They are occupied daily in seeing that the water supply is as pure and as carefully filtered as it can possibly be. The food of the men and the sanitary condition of the barracks and their environs engage their closest attention, and, like all men, they are prone to believe that their vigilance has not been without effect. They have done all that can possibly be done to ensure the purity of the air, and of the drinking water, as far as these elements come under their control, and accordingly they believe them to be fairly pure and free from contamination, specific or otherwise. But who can say that the air or the drinking water did not contain just sufficient putrescent or specific matter, inappreciable by any test, to give rise to the disease? Are we to suppose that Bareilly differs from other native towns, and that there are no effluvia from foul drains or cesspools in it? Is it the fact that the young soldiers,—the victims of the disease in this case—were never allowed to leave their barracks, and never had the chance, while walking through the native town or suburbs, of inhaling into their lungs a few whiffs of the fetid sewer gases that have made us all instinctively hold our noses and hasten on as we passed through the native quarters of large towns? It is, in my opinion, next to impossible to asseverate that a sufferer from typhoid in India has

not been exposed to a possible cause of the disease several times within a week, *i. e.* if we accept the theory that it may be caused by the emanations from putrescent animal matter.

It has been, as far as such a problem admits of proof, well nigh positively proved at home that enteric fever is associated with defective sewerage arrangements and the presence of putrescent animal matter either in the air or water. Such conditions abound almost every where in India, certainly in every large town, and owing to the greater heat of the atmosphere the changes of decomposition are more rapid, and probably more potent, and so exercise a most injurious influence on individuals exposed to them for the first time.

In his report on "enteric fever in relation to the British troops in the Madras Presidency" Surgeon-General Gordon observes, "The younger officers in this country attribute the phenomena of the disease to three principal circumstances, namely, (a) youth, (b) high temperature, (c) fæcal emanations in and around barracks. I reply, the disease so named is not confined to the young; high temperature alone will not produce it, and the third cause assigned, namely fæcal emanations in the places named, do not exist" (See *Medical Gazette* for October.)

If the disease 'so-named' is not confined in a great measure to the young, *i. e.* if more than $\frac{1}{3}$ th or $\frac{1}{4}$ th of its victims are over 30, we must conclude that it is something more than enteric fever; possibly cases of other kinds of fever get registered under this name. In this Presidency, where a large number of cases of genuine enteric fever have now been recorded, occurring amongst both Natives and Europeans, the ages of the victims have been in almost all cases, as well as I remember, and certainly in those in which I made *P. M's.* myself, below 30, *e. g.* in the 11 fatal in the 2/2nd Regt. the average age was 21.7 years. In the case which I now place on record the age was 23, and such is the general experience. If, then, the disease, as registered in the Madras Presidency, was not confined in a very large proportion of cases to the young, the Surgeon-General is probably right in surmising that it is something more than pure typhoid. But when he says that fæcal emanations in the places named, *viz.* "in and around barracks," do not exist, surely he says too much. When the soldier goes for his evening walk or for his morning walk, as the case may be, how can the Surgeon-General say that his nose has not been assailed by fæcal effluvia and emanations from all kinds of decomposing animal and vegetable matter? The surroundings of the late Prince Consort and of the Prince of Wales were unquestionably as little exposed to fæcal emanations or contamination of any kind as those of the average British soldier in this country, yet when they contracted typhoid disease no one doubted for a moment its pythogenic origin. If it is a fact that typhoid has been distinctly shown at home to be due to pythogenic influences, why should we seek to attribute its causation in this country to "climate" or other such vague and indefinite agencies? If the term climate includes the pythogenic and fæcal influences to which I have alluded, then I am all at one with those who say that it can give rise to the disease; but to charge 'climate,' in the ordinary acceptation of the term, with the causation of enteric fever, is, in my opinion, but combating with a shadow, and postponing for the time being all practical efforts to prevent the disorder.

Shillong, 10th September, 1878.

Temperature Chart.

October	18	19	20	21	22	23	24	25	26	27
Morning	101	103	101.2	101.1	100	100.2	101.2	102.4	101.2	101.1
Evening	102.3	102.3	101.1	99.2	99.1	100.1	99.1	103.1	102.1	102.2

TWO SUCCESSFUL CASES OF EXCISION OF THE LOWER JAW FOR MYELOID TUMOUR, WITH REMARKS.

By SURGEON P. J. FREYER, A. B., M. D.,

Bengal Medical Service.

Case 1.—A Hindoo male, named Mirhai, aged 30 years, was admitted into the Azamgarh hospital, on the 14th September, suffering from a large tumour of the lower jaw

Some three years previously he first noticed some swelling of the gum on the right side of the lower jaw. This swelling he attributed, at the time, to tooth-ache from which he was suffering. On the cessation of the pain in the tooth, however, the swelling did not subside, but, on the contrary, continued to enlarge slowly, till at the time he came under observation the tumour had attained the size of a large orange, invading the ramus and right half of the body of the lower jaw, and extending to the left slightly beyond the symphysis. The tumour measured $6\frac{1}{2}$ inches from behind forwards over its surface, and $4\frac{1}{2}$ inches vertically; it was most prominent over the angle of the jaw, and extended backwards as far as the mastoid process of the temporal bone. At some parts the tumour was of stony hardness, at others soft, elastic and fluctuating; at the inner aspect pressure elicited a crackling sensation. There was no discoloration of the skin, which was stretched over the tumour but not involved in it. The aspect of the tumour inside the mouth presented a bluish-red appearance, due to small arteries and veins coursing over it. There was some granular ulceration opposite the first molar. The teeth were displaced from their proper positions, and presented a very irregular line. The upper and lower sets of teeth could be separated for the space of one inch, but could be approximated only to within one-fourth of an inch. The glands of the neck were unaffected, there was no cancerous cachexia, and the man's health was fairly good. Such being the history and general characters of the tumour, I diagnosed it as a case of myeloid disease, and determined on the removal of that part of the lower jaw which it involved.

The patient having been subjected to preparatory treatment, the operation was accomplished on the 16th September as follows:—The patient was placed on the operating table in the supine position, with the head and shoulders well raised on pillows. Chloroform having been administered till anæsthesia was complete, a needle armed with a stout silk cord was passed through the tip of the tongue; the cord was formed into a loop which was drawn up on the left side of the mouth and fastened to the cheek by means of a strip of adhesive plaster. The point of a scalpel was entered to the left of the central line, one-fourth of an inch beneath the mucous membrane of the lower lip, and the incision carried down to the bone as far as the point of the chin. This incision was then continued boldly along the lower margin of the jaw as far as its angle, and then upwards along the posterior border of the ramus as far as the zygoma. During this incision there was considerable hæmorrhage, especially from the facial and transverse facial arteries. This was restrained by applying a ligature to the lower cut end of the facial and twisting the transverse facial artery. The flap of skin thus marked out was reflected upwards by applying the scalpel close to the bone and tumour. The lower lip of the wound was also reflected slightly downwards the knife being carried close to the bone along the whole length of its lower margin. One of the front incisors was then extracted and the jaw divided to the left of the symphysis by means of a small narrow-bladed saw. The right side of the jaw was then grasped and forcibly abducted, and freed from its internal connexions by the scalpel closely applied to the inside of the bone. In this process the