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SICKLE CELL ANÆMIA IN INDIA

FORTY-TWO cases with sickle cell trait, occurring in the aborigines were reported, for the first time in India, a few months ago, from South India (Lehmann, 1952). Work on more cases of the disease in another part of the country, by independent workers, appears to have been in progress for some time. It is reported in this issue (p. 387).

One of the names of the disease, Meniscocytic Anæmia, used by the authors of the article is new. It has not yet found its way into medical dictionaries, while Meniscocyte and Meniscocytosis have. In fact, Meniscocytosis is another name for Sickle Cell Anæmia (Hyman, 1947). Yet another name for the disease is Drepanocytic Anæmia (Drepanon = Sickle, in Greek). We prefer Sickle Cell Anæmia but tolerate Sickle-Cell Anæmia.

A distinction is made between Sicklemia (Sicklæmia) which is a sickle cell trait and Sickle Cell Anæmia which is an anæmia due to lysis of the abnormal red blood cells (Richter, 1948). The name Drepanocythemia (Drepanocythæmia) corresponding to Sicklemia is also in use (Pepper, 1949), and so is Drepanocytemia (Drepanocytæmia). The Drepanon is actually older than the Sickle : Such was the fondness of the medical profession for little bits of the classic, once upon a time. Now sickle has superseded drepanon.

As the abnormality produces morbid states other than anæmia, Sickle Cell Disease is a better name.

In three respects the second report is fuller of the two : (1) It has passed through the hands of hæmatologists with Indian experience, before publication. (2) It gives finding in the families of the subjects in whom the abnormality has been detected. (3) It brings out the comparative mildness of the disease.

The disease obviously exists in India, but, like many other diseases which are more serious elsewhere than here, is quite tame. The taming has obviously been accomplished by the soil and the sun. In this connection are reproduced passages from an article entitled,

TELLURAL HOSPITALS IN INDIA FOR NON-TROPICAL DISEASES : A POST-WAR PROPOSITION,

which drew attention to the taming influence on diseases of our soil several years ago (Greval, 1946).

Diseases which do not thrive in India

The list of European diseases affected tellurally in India is a long one. The chief amongst them that ought to have attracted attention long ago are : (1) Venereal diseases. They do not play the same havoc with the human body in India as in Europe. The incidence of parenchymatous syphilis in India is negligible. GPI is a rarity against 500 to 700 cases treated yearly since 1927 in England. Tabes is equally rare. Other manifestations of syphilis are mild and yield to simple medication. True WR positive rate for large towns like Calcutta is *under* 5.3 per cent and in the country must be considerably lower. Gonorrhœa is also mild and does not lead to strictures, crippling, impotence and sterility to the same extent as in Europe. (2) Disseminated sclerosis. This is one of the commonest organic affections of the nervous system in England. In India a typical case is again a rarity. (3) Infantile paralysis. Acute cases seldom attract attention. Badly crippled subjects are seen but rarely. Atrophy in small groups of muscles is detected occasionally in examining recruits for the army. Iron lungs obtained free by some hospitals in India have been used mostly for cases of opium poisoning. (4) Encephalitis lethargica. It hardly ever occurs in its typical form. *Jhinjhinia* of Bengal of 1936 (probably an epidemic of encephalitis) did not leave much damage behind. Death appeared to have claimed daughters-in-law and mothers-in-law mostly. (5) Other encephalitis of infectious fevers and vaccination. They are almost unknown. (6) Streptococcal infection. Scarlet fever is rare. Erysipelas is also rare. Subacute infective endocarditis is seen occasionally and proved by repeated cultures until the patient recovers. (7) Leukæmias. Cases are few and far between. Those of the splenomedullary type keep on reporting for examination year after year. Some go to Europe for treatment and die within a few months. (8) Kidney disease. Sufferers passing almost pure water not only live but earn their livelihood. (9) Diabetes. Even before the days of insulin Indians retired from Government services because of sugar in the urine and even neuritis lived in extra comfort for many years by finding other employments and adding salaries to their pensions.

A tellural hospital need not be more than a camp located in plains and hills alternately at convenient places. Ambala (*i.e.* near Ambala proper, in open country, on a stream) and Subathu (in Simla Hills near Kasauli) will provide cheap yet excellent sites. Northern India is preferable to the rest of India because of the least discomfort during the monsoon. The camp will consist of huts, tents and caravans. India lends itself to camp life particularly well. The might and splendour of the Great Mughals were paraded in camps. Here are peeps into the tents of Aurangzeb's camp at Ahmednagar : ' . . . . Persian carpets, damasks and tapestries, European velvets, satins, and broad cloths, Chinese silk of every description and Indian muslin and cloth of gold were employed in all the tents with utmost profusion and the most brilliant effect. On the other side, surrounding the great enclosures, were separate tents for the emperor's armoury and harness, a tent for water kept cool with saltpetre, another for fruit, a third for sweetmeats, a fourth for betel and so on . . . .'. These tents were pitched in 1684. In 1946 and after more comfort and luxury could certainly be provided.

The medical establishment need not be top heavy. Full advantage will be taken of the local hospitals (civil and military) for the few possible medical and surgical emergencies.

This is a skeleton of a scheme for a tellural hospital. More can be added to it with advantage after a

beginning is made. Such an institution in a post-war world will become a centre for international contact and goodwill.

Why have not such hospitals been suggested before?

Because so far, as a rule, when the travelled medical men of leisure have grown wise with the experience of the East, they have left the East. A few that have remained have found private practice along old traditional lines more interesting, administrative controls in new spheres more satisfying and business (through contacts established by grateful patients) more lucrative. Examples are found in every province in India.

One more disease has been added to the list. Sufferers from it elsewhere may leave their homes, ulcers on legs, deformities of bones, and even pain in the abdomen and asthenia, to come to live in comfort and even to work in India.

Pernicious anæmia is known to occur but not to thrive in India. Cases reported lack that frankness which is common in Europe and America. Some cases of Cooley's anæmia have also been described; they also lack the frankness. Our soil and the sun guard the bone marrow specially.

Incidentally, 'sickle cell anomaly' has recently been described from Greece (Caminopetros, 1952), and 'sickle cell trait' has been found in Yemenite Jews, other oriental Jews and an Arab, in Israel (Dreyfuss and Benyesch, 1952). The sickling appears to be losing its discomfort as histoplasmosis has lost its terror (Editorial, 1952), even elsewhere.

Incidentally again, the top-heaviness of hæmatology attracts attention and calls for separation of the essential from the non-essential, like an effective infantry man's equipment. Observing the shape of the red blood cell is the essential and deduction of many secondary figures from the main figures of primary observation may be regarded as non-essential. They usurp the time and space which could be given to the essentials. In spite of elaboration of many figures of imposing appearance from total rbc and Hb 'the colour index is still useful' (Cappell, 1951).

The quick methods of detecting the sickling of the red blood cells constitute a recent advance in hæmatology (Dyke, 1951). Ascorbic acid and/or sodium bisulphite (Daland and Castle, quoted by Dyke, *loc. cit.*) and sodium dithionite (Itano and Pauling, quoted by Dyke, *loc. cit.*) are used as acidifying and reducing agents for the hæmoglobin: sickling occurs only when the hæmoglobin is reduced. With a drop of 2 per cent solution of sodium metabisulphite, on a slide, under a cover slip, sickling occurs in the morbid red blood cell within 15 minutes (Castle, 1951). 2.1 per cent solution of sodium hydrosulphite is also used (Cappell, *loc. cit.*). This easy test deserves a trial in (*i*) every case showing red blood cells of irregular shape or suggestive of targets, in an ordinary stained film, (*ii*) every case of anæmia resisting treatment, (*iii*) every case of refractory ulcers on legs, (*iv*) every case of 'rheumatic' pains not yielding to treatment, (*v*) every case of deformity of bones, (*vi*) every case of abdominal pain, prior to laparotomy, and (*vii*) every case of suspected cerebral thrombosis. In fact, the test can be performed routinely without much extra trouble.

We take this opportunity of inviting attention of the profession to the aforesaid TELLURAL HOSPITALS IN INDIA FOR NON-TROPICAL DISEASES.

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CONTROVERSY OVER BCG VACCINATION

RECENTLY the efficacy and even harmlessness of this immunizing agent have been questioned. A Newsletter prepared by the American Medical Association has appeared in the *Indian Medical Gazette* (February 1952, p. 81) and comments on this letter have been made later in an editorial (March 1952, p. 107). Correspondence has taken place on the same topic in *The South African Medical Journal.*

A protagonist has now asked for the publication of all available correspondences on the subject. We agree. Will the readers also express their views, giving a priority to the matter?

The correspondence is scheduled to appear in the December issue which will go to the press by the middle of November.

In this forum both protagonists and antagonists will be welcome. Contributors desirous of remaining incognito, because of administrative