

## THE PRESENT EPIDEMIC OF DENGU AND ITS TREATMENT

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An epidemic of fever, remarkable for many peculiarities, is just passing over Calcutta and its suburbs, and also over other parts of Bengal.

*Definition:*

A short-lived continued fever, characterised by frontal headache and by severe pains in the limbs and trunk and sometimes by an eruption, resembling that of measles over the body commencing suddenly.

*Synonyms Invasion and Progress:*

It is known as Dandy Fever, Break-bone Fever and Dengu Fever. The invasion in the majority of cases is almost sudden, that is to say, the fever sets in with the pains in the joints and muscles or with headache, at once without any considerable or even appreciable time intervening between them. Perfectly hale and hearty and unsuspecting before, people have found themselves after, the mid-day-nap or the usual night sleep, so crippled by the disease, as to be absolutely incapable of getting up from their beds. Many a maid has found herself in the midst of her occupation, unable to hold her utensils, her limbs having become suddenly stiff. A lady after a refreshing bath just as she sat down to dinner, she found she could not lift her hand to her mouth, and immediately she had to give up her meal and to take to her bed. Another boy at Gokul Boral Street had profuse haemorrhage from the nose with faintness and unable to stand and stiffness of the lower limbs. The Dengu having, without any warning, began torturing them with stiffness and pains. Sometimes however, though very rarely, the rheumatoid affection precedes by a few

hours even by a day, the onset of the fever. Such cases generally run a mild course.

Besides the pains, which are complained of as almost intolerable, the fever is characterised by such utter prostration of the whole system that, without being actually comatose, the patient may at times appear to be so, and he so loses control over himself that, without being actually delirious he may at times appear to speak as if in delirium, his utterances being hurried and apparently unconnected. In children often, but very rarely in adults, there may be actual coma, delirium and convulsions.

The disease in the typical cases, is characterised by two crops of rash, one which appears almost with the fever, and has hence of been called the *initial*, and the other, which makes its appearance on the subsidence of the fever, and has been accordingly called the *terminal* rash. Generally, the initial rash makes its appearance on the face, and thence spreading upwards and down wards. The whole face would sometimes present a bloated appearance.

This rash is generally very evanescent, appearing and disappearing in the course of a few hours; hence it has not been regarded as a constant phenomenon. Sometimes it persists and gradually changes into the second or the terminal crops. In some cases there has been an inverse proportion between the initial rash and the rheumatoid affection, the one being more in proportion the other is less, developed. This however, does not hold in all cases, both the rash and the pains being of a very distressing character. The fever subsides generally at the end of three days, but many extend to Five and even to Eight or Ten days. There is no regular intermission in the course of the days, but there are irregular remissions, the patient sometimes perspiring and feeling comfortable, and in the next hour being hot again with burning thirst, vomiting, headache and pains.

Generally one day, sometimes Two or more days, after the subsidence of the fever, appears the terminal rash which, as far as we have observed is distinctly of the rubeoloid type.

With this as with the initial rash, the first appearance is

generally on the face, but it may like the other appear first on the hands and trunk. This rash is the most constant and takes about from three to seven or eight days to disappear, leaving behind a furfuraceous, mottled skin, exactly like that after the disappearance of the rash of Measles. There is no desquamation of the skin after the disappearance of the initial rash. After the appearance of the terminal rash, the fever sometimes reappears, but it is never so severe as the initial fever. Thus the disease may be described as consisting, normally, of three stages *The Initial*, *The Intermediate*, and *The Terminal*.

THE FIRST or INITIAL STAGE lasts three days and is characterised by great violence of the fever and of the pains and a rash.

THE SECOND or INTERMEDIATE STAGE lasts from a few hours to a day or two, and forms, as it were, a stage of calm, being characterised by the subsidence of the fever, amelioration in the pains, and the absence of any distinct rash, except a slight continuation, occasionally of the initial rash.

THE THIRD or TERMINAL STAGE lasts from two or three to more days, and may be said to form in a manner the relapsing stage, being characterised by the re-appearance of the fever, with nothing, however, of the violence of the initial stage, the breaking out of a fresh rash, distinct however, from the initial one, being of the rubeoloid type, and also by some aggravation of the pains.

Throughout the whole course of the disease the mucous membrane of the oral cavity is very seldom affected in the same way as the skin, but the tongue presents almost a characteristic appearance, being thick, red at the edges and tips, and covered with thick white fur on the rest of its superior surface. This character of the tongue persists long after the disappearance of the disease, and should caution us against improper dieting. Sometimes, though very rarely, specially in children, there is redness of the mucous membrane of the oral cavity and of the fauces, and even swelling of the tonsils and of the salivary glands. These form very serious, sometimes dangerous complications and the Physicians should be very particular in in-

quiring about them, and should always satisfy himself about their existence or the contrary, by examination of the interior of the mouth and pharynx.

#### SIMILARITY WITH FORMER EPIDEMICS

The Epidemics, having resemblance to the present one, of which record are available, prevailed in India in the year 1824 and 1825, and in the West Indies in the years 1827 and 1828, since that date there have been Four or Five wide-spread Epidemics in India and the last one in 1941.

The present epidemic very closely resembles the epidemics that prevailed in India in 1824 and 1825 and the epidemics of the West Indies of 1827 and 1828, both in the rheumatoid affections, which throughout-forms the most distressing feature of the disease, and in the character of the rash. We lay more stress upon the suddenness of the attack and upon the affections of the fibrous structures and joints, than upon the rash, as the characteristic of the disease.

In the present epidemic, the rash has been absent in several cases, but the rheumatoid affections present in most cases. Besides, in many cases, the disease has manifested itself simply in the shape of lameness of joints and muscles, without being developed into actual fever.

To recapitulate, the grand points of similarity between the present and the former epidemics are the suddenness of the attacks, the severe arthritic and muscular pains, the apparently formidable nature of the disease, its sparing neither age nor sex nor even sickness, its running a definite course, and the marked favourable issues of all or nearly all the cases.

#### *Etiology:*

The rapidity of diffusion and pandemic character are the two most important features of Dengu. There is no disease, not even Influenza, which attacks so large a proportion of the population. The cause is evidently in the atmosphere but whether it is any extraneous matter floating in it, or whether it is merely some change in its condition, meteorological or other, has not been ascertained. This much is certain that it

is not referable either to variation in the pressure or temperature of the atmosphere or in the rainfall. There are states of the atmosphere which influence our feelings of health and comfort, and doubtless exercise an action on the human constitution, in a degree not to be ascertained by any instruments or scale hitherto invented. In 1903 Dr. Graham showed that cause of the disease is the bite of the mosquito, *Culex fatigans* (other names *Culex ægypti*, *Stegomyia fasciata*—Ed.) We do not believe it. We do not believe that contagion, has anything to do with causation and propagation of the epidemic. I do not know that any proof can be added of the contagious nature of this disease, on the contrary, I believe it was not communicable from one person to another.

*Pathology:*

The first start of the disease is evidently from some interference with the functions of the skin, preventing the due elimination of certain deleterious substance from the blood, which accumulate in the fluid, and through it, powerfully depress the nervous system, and would seem to have an affinity for the fibrous structures of the joints and muscles. [This may be a plausible speculation, but lacks scientific evidence.—Ed.].

*Diagnosis:*

The only diseases which are likely to be confounded with it are rheumatism and measles. From rheumatism it is distinguished by the large and small joints being equally affected and by the presence of the rash. From measles, by the presence of the rheumatoid affection, and general want of catarrhal symptoms of the air passages. The suddenness of the attack distinguishes it from rheumatism and measles.

*Prognosis:*

While the disease is exceedingly a severe one, considering the sufferings of the patient, it is an exceedingly mild one considering the favourable way in which it terminates. There need be no death under judicious treatment. Even the infants and extreme old ages have rare mortality. Dr. Twining writes,

"The fever which prevailed in Calcutta in June, July and August, 1824 was equally remarkable, whether we consider the patients' sufferings at the time, the few out of the whole population who escaped an attack or the very inconsiderable mortality caused by it." We must, however, be very guarded in our prognosis, especially in the case of Children, whenever there is implication of the oral cavity and the pharynx. Death in spite of all that we do, may take place whenever these complications are present.

*Sequel:*

These consist chiefly in prostration and general debility and the Lameness of joints and muscles. We have seen cases in which prostration has gone so far as to cause considerable weakness of vision and hearing. In some cases, especially when mismanaged, well developed arthritis and synovitis have been the result. Constipation or diarrhoea sometimes succeeds the disease. Genuine relapses are rare, but in cases of debilitated constitution, there may be recurrence of the fever.

*Prophylaxis:*

The best prophylaxis appears to us to be not to sleep in the draught, especially in the latter part of the night, when we should advise a light covering to the body. Just when the pains are declaring themselves in the joints and muscles, a few doses of Rhus tox 30 may avert the attack, atleast a severe attack.

The avoidance of acids and sub-acidic fruits seems to lessen the severity of the disease. We are certain a free indulgence in them predisposes to, and aggravated the disease.

*Treatment:*

In the treatment of this disease, it is essential to bear in mind that asthenia or extreme prostration of the vital powers forms its grand feature ; a fact which must necessarily condemn all depletory and exhausting measures.

In the treatment during early periods of this fever, it required some amount of courage and skill, because the severity

of suffering, with great heat concentrated about the head and neck as well as the prostration, bleeding did not cut short the disease. I saw several cases in whom depletion had been taken recourse to, and they gave me great trouble during convalescence, the power of digestion was greatly impaired, there was considerable vertigo with tendency to fainting. The mild cases get well of themselves, and require no treatment. The graver cases do require treatment, and very prompt treatment too, both of the course of the disease, and for preventing the development of the sequelae.

*Eupatorium Perfoliatum*—known as “Bone set” from the prompt manner in which it relieves pain in limbs and muscles which is the distressing symptoms of some cases. BELLADONNA, RHUS TOXICODENDRON, BRYONIA, NUX VOMICA have proved in our hands the most efficacious remedies.

We generally prescribe BELLADONNA when the fever is high, or when the face is redder than the other parts of the body, or when the head and brain symptoms are very prominent, in chilly patient; but when the patient is warm-blooded ACONITE may be used.

We prescribe RHUS TOX and BRYONIA, when the pains are very severe, the former when the muscles and the fibrous structures of the joints are especially effected, the latter, when the synovial membranes are especially affected. We have found RHUS TOX to be more useful.

Some patients complain of intolerable burning all over the body. In such cases, ARSENICUM, even at the high fever.

There is very often irritability of alimentary canal in the epidemic. IPECAC, NUX VOMICA, for the nausea and vomiting and PULSATILLA for diarrhoea will answer all our purposes. Where there is both diarrhoea and nausea ARSENICUM is the remedy. In some cases irritability of the stomach is so great that the patients vomit immediately after drinking even the smallest quantity of water. In such cases *Eupatorium* will help.

The Sequelae are best treated by RHUS TOX when there is lameness of the joints and debility, by PULSATILLA, ARSENICUM or CHINA when there is diarrhoea; the constipation is better

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Natrum Sulph, Nat. mur, Kali phos, Kali sulph. An old lady covered all over with warts could tolerate *Syphilinum* quite well, while *Thuja* used to upset her. Many homœopaths have noticed intense aggravation from high potencies of Nux vomica, Phosphorus, Sepia, etc. Warts are so closely connected with sycosis that Hahnemann called it "the fig-wart disease." Sycosis is the remote effect of gonorrhœa.

So we can conclude that the fear of aggravation from specific remedies has resulted in the use of minute doses in homœopathy as well as the total prohibition of specifics in Allopathy. The Allopathy has furnished the secret of Homœopathic minimum doses.

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left alone, or a few doses of NUX VOMICA will be sufficient into a cure.

Dr. Mohendra Lall Sircar has recommended EUPATORIUM PERFOLIATUM at the onset, when such are premonitory signs of the approaching fever, as general malaise pain in the bones and joints etc. to be continued as long as no rash appears. [Vide—Calcutta Journal of Medicine (Edited by Dr. Mahendralal Sircar) 1872, Vol. V].

Dr. L. Salzer, M.D., recommended the same, if applied properly it will cut short the disease and patients may be able to attend to his business by the third day.

Dr. Sircar says "Just when the pains are declaring themselves in the joints and the muscles a few doses of RHUS TOX may avert the attack at least a severe attack".

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