

KALA-AZAR

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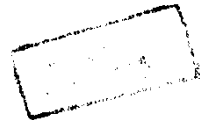
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DEDICATION
TO MY FAMILY
RASSMY, ROTBY, AMEER, SHAHEER, SHADY, SHEREEF



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INTRODUCTION

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Definition :- =====

Visceral leishmaniasis is a chronic infectious disease caused by *leishmania donovani* and characterized by irregular fever, enlargement of the spleen and liver, weight loss, anaemia leucopenia and hypergammaglobulinaemia the disease is also known as Kala-azar (Hindi for black sickness). Dumdum fever and ponos (Greek for Hurt). (Chulay and Manson Bahr 1984).

Synonyms :- =====

Tropical splenomegaly, Black sickness, sirkari Disease, sahib's Disease, Burdwan fever, Dum-dum fever, ponos (Greece), Mard el Bicha (Malta) (Manson-Bahr and Apted 1982).

For Indian Kala-azar, - dumdum fever, tropical splenomegaly, black sickness, for infantile Kala-azar, - splenic anaemia of infants, ponos; (STRONG 1948).

"Black fever", Kala-dukh, Burdwan epidemic fever, (RoGér's 1919).

History :-
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The early history of Kala-azar in India is somewhat obscure the disease first attracted public attention in 1882 when Clak, of the sanitary commission of India, gave an account of 100 cases, described as a severe form of Malarial cachexia, depopulating certain areas at the foot of the Garo Hills. Assam. The Garos called the affection Kala-azar (black fever), and it appears that it had been known to them since about 1869 its occurrence among them was one reason for their failure to be able to pay the land rents owing to the amount of sickness and disability it occasioned in the tribe the disease at times terrorized the natives, who were often to have intoxicated afflicted patients and burned them in their huts to eradicate the malady.

This epidemic of fever advanced slowly up the Assam Valley, and by 1889 had spread 150 miles up the valley of the kamrup district.

It was also known that from 1854 to 1875 epidemics of the affection, under the name of "Bu-

rdwan fever", occurred in lower Bengal, occasioning a quarter of a million deaths, and in some districts as many as 50,000 people succumbed. While the nature of Burdwan fever must be regarded as obscure, it seems reasonably certain that the disease which was described by Dr. French in 1872, as having existed in the Burdwan district since 1862 was Kala-azar.

The Assam epidemic maintained a steady rate of progress up the valley, and by 1896 it had overrun the next most easterly district of Nowgong, the death rate being so considerable that there was a decline of 31.5 percent in the population of Nowgong in that decade. Napier reported that the disease was at its worst in Nowgong between 1890 and 1900, and during this period the population showed a 25 per cent decrease. He suggests that in the great Assam epidemic, virgin soil was being invaded, whereas in south Bengal it had been endemic for many years.

But the early history of Kala-azar in China is unknown. No great epidemic in China comparable to

that of Assam has been recorded, though mild outbreaks extending over several years at a time, and outbreaks occurring in cycles of 15 or 20 years are said by Young and Hertig to have occurred, Cochran, who investigated the subject in 1913, found that all the earlier authentic cases had occurred in the country north of the Yangtze River, with the exception of Wuchang and Kinkiang, which are on this river (Strong 1948).

Our knowledge of Mediterranean leishmaniasis or Kala-azar probably goes back to 1835, in which year, Roser directed attention to the occurrence of ponos, or a painful enlargement of the spleen, in young children on the Island of Spezzia Pallas also shortly afterwards referred to the condition, and it was learned that it was endemic in the Island of Hydra as well as in spezzia.

Karamitsas (1880) and Stephanos (1882) gave excellent clinical accounts of the affection, which was said to commence during the first year of life the earliest symptoms being languor and pallor, fever

of an irregular character and enlargement of the spleen. Emaciation became progressive the digestion was enfeebled, and constipation was nearly always present. The spleen gradually attained a great size and was tender, these symptoms determined the Name ponos.

Pathological examination showed the characteristic lesions of tuberculosis, Leukaemia, and malaria as absent. Gabbi later proved that this disease, ponos, as seen in spezzia, was a form of leishmaniasis. However, the parasitic causation of Mediterranean Kala-azar had already been demonstrated in 1905 by pianese. (Strong 1948).

Discovery of the parasite:
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In 1869 the English Medical authorities in India became familiar with a very fatal disease among the natives of Assam but regarded it as a very malignant form of malaria. The natives designation for the disease was Kala-azar. In 1889 Giles investigated this disease and finding hookworm ova in almost all of the cases he came to the conclusion that it was ancylostomiasis.

Rogers (1896) and Ross (1898) after studying the disease were of the opinion that it had to do with malaria, the former regarding it as a malignant form of Malaria and the latter as malaria plus some secondary infection.

Owing to the very similar temperature charts and misled by agglutination tests of the serum of Kala-azar patients, which he regarded as showing agglutinins for *Alcaligines melitensis*, Bently, in 1902, Claimed that Kala-azar was a malignant form of Malta fever. In 1903 Manson suggested that the disease might be caused by a trypanosome, the absence of Malarial parasites and non response to quinine being against the then usually accepted malarial etiology.