EXAMINING VISCERAL LEISHMANIASIS, A ZOONOTIC PARASITIC DISEASE: A REVIEW

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Abstract

The World Health Organization defines Neglected Tropical Diseases (NTD’s) as diseases that affect the poorest populations often living in remote rural areas, urban slums, or conflict zones.† Transmitted by the phlebotomine sandfly, leishmaniasis is one such disease that is now found in 88 countries around the world, 72 of which are developing countries.‡ Largely a problem for those earning less than $2.00 per day, leishmaniasis debilitates 12 million people from leading productive lives.§, ∥ Visceral leishmaniasis (VL) is the most severe form of leishmaniasis and is fatal if left untreated. 90% of VL cases occur in Bangladesh, Brazil, Ethiopia, India, Nepal and Sudan, and VL has an incidence rate of 500,000 new cases per year.¶ While diagnosis and treatment are limited by cost and other variables, there are several effective prevention and control measures to contain the sandfly population. Moving forward, surveillance systems, health infrastructure, and education programs must be improved. Governments must work with international agencies, NGOs, private organizations, and most importantly the public to eliminate visceral leishmaniasis.

Visceral leishmaniasis (VL), also known as kala azar, is the most severe form of leishmaniasis. The initial discovery of this disease is uncertain, but many sources attribute the first reported epidemic to the 1824 outbreak in what was then Jessore, India, but today Bangladesh. Those infected experienced chronic fever, severe weight loss, emaciation, and dark discoloration of the skin, and eventually died from terminal dysentery or pneumonia. A few years later, the disease migrated to the Ganges plain and West Bengal from which it spread further to neighboring regions (See Figure 1). In 1862 VL reached Jageer, Bangladesh and wiped out most of the population within four years. The disease proceeded to kill 25% of the population of Assam, India, from 1875 to the start of the 20th century. Isolated cases continued through the 20th century, and recurring epidemics took place in Assam in 1918 and 1944. Due to this devastation, the disease was known as the “Assam fever.”§

William Leishman and Charles Donovan are recognized today as the two physicians who