

KALA-AZAR: Striving for elimination

STORY HIGHLIGHTS

- ◆ Newer, safer and effective treatment regimen and inexpensive, user- friendly rapid diagnostic tests boosts prospects for Kala-azar elimination.
- ◆ Success of single dose Liposomal Amphotericin B, Ambigome, brings early relief and ends compliance- failure faced by the earlier long- term treatment.
- ◆ Collaborative efforts under the 2014 Agreement between 5 affected countries of WHO South-East Asia Region (SEAR) accelerates elimination timeline.

Spread by the bite of infected female sandflies, Visceral Leishmaniasis, also known as Kala-azar, is a neglected tropical disease. Over 147 million people in the World Health Organization's (WHO) South-East Asia Region are at risk of contracting this life-threatening disease, mainly in Bangladesh, India and Nepal, with recent, sporadic cases being reported from Bhutan and Thailand. Of the total 109 districts in these three countries where Kala-azar is endemic, 52 are in India, 45 in Bangladesh, and 12 in Nepal.



Characterised by high fever, loss of weight, anaemia and swelling of the liver and spleen, Kala-azar is debilitating, and without treatment, it is fatal in almost all cases. Defeating the disease involves early detection of all Kala-azar and post-Kala-azar dermal Leishmaniasis cases, improved treatment for post-Kala-azar dermal Leishmaniasis cases, and compliance with treatment along with effective vector control.

Governments and health experts across the South-Eastern region are hopeful that the killer disease will soon be eliminated as a public health problem. Elimination of the disease, defined as annual incidence of less than 1 per 10,000 population at the district or sub-district level, will not only be a public health success story, it will also help in the mitigation of poverty in the affected areas.

“Several endemic areas in the Region are reporting zero or very few cases of Kala-azar and both reported cases and death from Kala-azar are at the lowest in the Region. There is strong political commitment from top health leadership in all endemic countries in the Region, not only to accelerate work within the countries but also on inter-country collaboration and working together. There is strong support from donors and partners and a highly effective drug is been provided freely to endemic countries. Historically we are in a favourable moment where we can indeed eliminate this disease if the momentum is maintained,” says Dr Ahmed Jamsheed Mohamed, Medical Officer, Vector-Borne Diseases, WHO Regional Office for South-East Asia.

What is changing on the ground? In India, Bihar accounts for 60% of all Kala-azar cases. But today, health experts travelling through Bihar exude optimism as Bihar is not alone in waging a battle against Kala-azar.

Dr Saurabh Jain, Technical officer for vector borne and neglected tropical diseases, in the World Health Organization India office, offers some key insights. While travelling across Bihar, he has noticed a visible intensification of activities aimed at elimination of the diseases. This is due to the concerted efforts by state and national governments, international partners and other key stakeholders.

“These are exciting times for India’s Kala-azar Programme. There are clear-cut activities defined under the (2014) National Roadmap for Kala-azar Elimination launched by the Health Ministry. Now, there are inexpensive and user-friendly rapid diagnostic tests. A newer, safer and effective treatment regimen is available. And the role and responsibilities of major partners and stakeholders are clearly defined, he says.”

New treatment regimen

One of the most exciting developments has been the new treatment regimen using Liposomal Amphotericin B (LAmB). Elimination efforts have gained momentum with the donation of



Liposomal Amphotericin B facilitated by the WHO. In 2011, the WHO signed an agreement with Gilead Sciences for the donation of 445 000 vials of Ambigome (amphotericin B liposome for injection) for the treatment of kala-azar. The donation, which aims to treat more than 50 000 people infected by the disease over a period of five years, with provision for an extension of another five years offers hope to some of the poorest communities in South-East Asia and East Africa.

Back in Bihar, grateful families talk about the wonders of the new Kala-azar treatment. Dr Jain recalls his visit to village Bade Gaon in Bihar's Muzzafarpur district which has the highest number of patients. He spoke with the father of one of the patients, an eight year -old boy. The child was suffering from fever for a month. The boy's father had contacted a local traditional healer but it was of no use. Once we went to the local health facility they quickly diagnosed my son as having Kala-azar. He was treated at the district hospital where he was discharged the same day. I am really happy that he started to feel better almost immediately. The fever has gradually gone down and the abdominal distension too has disappeared. All thanks to the new Kala-azar treatment" he said.

There are more such stories.

"Liposomal Amphotericin B has the highest therapeutic index of current anti-leishmanial drugs and is given in a single dose. This avoids long term treatment offered by the other existing anti-leishmanial drugs, including Miltefosine, which required upto 28 days of treatment and frequent visits to health facilities, full compliance to the treatment. Besides this, there were side effects and limitations in cases of use in special patient groups like pregnant women", explains Dr Jain.

With use of Liposomal Amphotericin B, patients have a feeling of well-being soon after the treatment, although it takes a little more time for the fever to subside and the enlarged spleen to regress. Till date, nearly 1500 patients have been treated with Liposomal Amphotericin B in India alone since it was introduced in the national programme late last year.

The importance of collaboration

Since 50% of the cases in the three main affected countries occur in areas close to international borders, these measures will strengthen inter country collaboration to control and eliminate Kala-azar and will accelerate results.

In 2014, WHO led the efforts to bring together Health Ministers from five SEAR countries affected by Kala-azar. The Ministers from Bangladesh, Bhutan, India, Nepal and Thailand signed a Memorandum of Understanding to collaborate in the elimination of kala-azar.. Areas for collaboration include mutually agreed mechanisms of resource mobilization; exchange of information; inter-sectoral collaboration; research; capacity building and technical support.

Bangladesh is also gearing up to eliminate Kala-azar. During the past 5 years, more than 15 000 cases have been diagnosed and treated in a country where detection had until recently been a challenge. In 2013, a total of 1284 cases were reported to WHO compared with 4293 cases in 2009, a reduction of more than 70% in the number of new cases reported annually.

"We used every available means to engage the public to help us get down to detecting the maximum number of cases in endemic upazilas (sub-districts). We combined active case

searches, treatment and vector control strategies, and our strategy is working,” says Professor BeNazir Ahmed, a senior official in Bangladesh’s Ministry of Health and Family Welfare.

Kala-azar affects extremely poor communities in remote, rural locations often neglected by weak health care systems. This prevents proper surveillance, leaving cases undetected with delayed treatment. A cycle of poverty is created where people who cannot afford treatment are not well enough to go to work.

WHO technical guidelines for Kala-azar in the Region include diagnosis and treatment of Kala-azar, indoor residual spraying and insecticide treated nets. Training packages for doctors, nurses, health workers, supervisors and spraying teams include surveillance guidelines regarding disease and vector surveillance, consistent reporting systems and formats and supervisory systems, quarterly monitoring and checklists.

All these measures are critical to success, not just against kala-azar, but other diseases as well.