

# Post Kala-azar Elimination Scenario in the Indian Sub-continent

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Short Running head: Post Kala-azar Elimination

Visceral Leishmaniasis (VL) or Kala-azar is a Neglected Tropical Disease characterized by fever (> 2 weeks), anaemia and splenomegaly in the absence of malaria in a Kala-azar endemic area. Leishmaniasis is prevalent in 88 countries, and there are an estimated 2 million new cases per year, of which 500 000 are VL cases. More than 147 million people living in the South-East Asia Region are at risk. In the background of huge disease burden and the disease being localized, Kala-azar Elimination Programme [1] was initiated by India, Nepal and Bangladesh in 2005 with technical assistance from World Health Organization. The target of elimination was to achieve an incidence of less than 1 case per 10000 populations at the district level in Nepal, Upazila level in Bangladesh and subdistrict level in India by 2010 which has been extended to 2020. The rapid decline of VL cases in the three countries, it is reasonable to expect that elimination will be achieved. Nepal has already achieved elimination and sustained it for two consecutive years. Bangladesh and India are expected to achieve the same by 2020. Now the issue is what next!

After the elimination goal is achieved, there will remain a number of VL, PKDL and Asymptomatic cases in the three countries. Bhutan [2] has reported few sporadic cases in 2006. Because of finding of several cases, Sri Lanka and Thailand have joined the programme. In this scenario, strong surveillance and active case search are required for VL and PKDL. Treatment of VL is

standardized, but not that of PKDL.

Standardization of PKDL treatment demands development of new, safe, preferably oral and effective drug(s) that are required to be given for relatively short course. The other aspect for sustenance is detailed understanding of the natural history of asymptomatic infections.

A prospective study [3], involving a cohort of 355 persons in a Kala-azar endemic area, found that the rate of progression to symptomatic cases was 17.85 per 1,000 person-months. Presumably, in context of remaining clinical cases (VL & PKDL) and high density of *Phlebotomus argentipes*, it leads to conversion of asymptomatics [4,5] to full blown VL cases and add to the existing pool of cases after the elimination programme ends. At this point of time, which may be several months to years after elimination, there will remain a pool of frank VL, PKDL<sup>6</sup> cases and the addition of asymptomatic-symptomatic converted VL cases. Simultaneously, the transmission dynamics will continue unabated as the vector (*Phlebotomus argentipes*) is still rampant. Malnutrition, poor housing and environment will continue to nurture the existence of the vector and facilitate transmission of the disease. The role of VL/HIV co-infection is unclear and probably over rated in the Indian subcontinent.

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- [8] CONFLICT OF INTEREST: AUTHOR SKB WORKED IN WHO, SEARO AND WAS ASSOCIATED WITH KALA-AZAR ELIMINATION PROGRAMME IN THE INDIAN SUB-CONTINENT.
- [9] BOTH THE AUTHORS PARTICIPATED IN THE CONCEPTION OF THE MANUSCRIPT, READ IT AND APPROVED.
- [10] FUNDING: NO FUND WAS RECEIVED FROM ANY SOURCE FOR THIS WORK
- [11] ETHICS: NO ETHICAL ISSUES WERE FOUND AND THE AUTHORS DID NOT VIOLATE ANY PRINCIPLES OF ETHICS.

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