Ongoing neglect of leishmaniasis

The expulsion of aid agencies from north Sudan by the Sudanese government will seriously hamper efforts to tackle visceral leishmaniasis, warn experts. The disease, also known as kala-azar, affects more than 20,000 people in Sudan; treatment programmes are largely funded by organisations such as Médecins Sans Frontières (MSF). “We were on the verge of starting a new kala-azar intervention in eastern Sudan”, explains Koert Ritmeijer (MSF, Amsterdam, Netherlands), “and this has had to be shelved”.

Worldwide an estimated 500,000 people each year contract visceral leishmaniasis. It is concentrated in southeast Asia, east Africa, and Brazil. Only five drugs are in use, all of which are used as monotherapies. In Sudan, the first-line therapy—pentavalent antimonials—is toxic, increasingly prone to resistance, and requires 30-day, hospital-based parenteral treatment. “There is an urgent need to develop combination therapies”, stresses Ritmeijer.

The Drugs for Neglected Diseases Initiative does have combination therapies for leishmaniasis in phase II and III trials. “But there is no single new candidate in phase II or III trials”, notes Jorge Alvar (WHO, Geneva, Switzerland). There is increasing drug-resistance in India and Nepal, with up to 60% of cases in India now resistant to pentavalent antimonials. The most effective therapy—liposomal amphotericin B—has been shown to cure 98% of cases in southeast Asia in a single application. But it is prohibitively expensive: around US$250 per patient.

All other available treatments have serious drawbacks. In east Africa, for example, HIV-leishmania coinfection is increasingly common: in northwest Ethiopia, the past 10 years have seen rates of coinfection grow from 19% to 34%; in Sudan, clinics that reported no coinfection in 2002, are now seeing rates of 20–25%. “Antimonials are highly toxic for these patients”, Ritmeijer told TLID, “but the other drugs are less effective”. “Most of these patients relapse within a year, before dying they are important spreaders of the parasite”, added Alvar.

“Leishmaniasis is in need of better public relations”, Richard Ashford (Liverpool School of Tropical Medicine, Liverpool, UK) told TLID, “it doesn’t have anything like the profile of other infectious diseases.” In 2007, the World Health Assembly passed a resolution on control of leishmaniasis, acknowledging the neglected nature of the disease, and emphasising the need for control programmes and improved surveillance systems.

Currently, epidemiological information on leishmaniasis is either non-existent or out-of-date. In India and Nepal, Ashford told TLID, “the reporting systems are so poor that we can’t tell how many cases there are”. Over the next few months, there will be three WHO consultative meetings on leishmaniasis. They aim to collate epidemiological information for African, Eurasian, and southeast Asian countries to provide official estimates for visceral leishmaniasis.

By the end of 2010, Alvar plans to have set-up the Global Strategy for Leishmaniasis. The strategy will encompass regional strategies, updated epidemiological information, profiles of individual countries, and a technical report on leishmaniasis. This will be the first concerted worldwide plan for tackling leishmaniasis, Alvar told TLID, and armed with such a plan he expects it to be easier to advocate for funds from major donors.

The Spanish Government and the World Bank provide backing for several leishmaniasis programmes. But experts agree that much more money is needed. Cutaneous leishmaniasis is particularly neglected (an estimated 1·5 million cases worldwide every year), notes Alvar.

“Africa is in need of better treatment”, says Alvar. “There is an urgent need to develop combination therapies”. However, much of the funding for leishmaniasis is from WHO, and civil wars and political instability have hampered progress in endemic areas.

“Many people might not be aware of the scale of the problem”, notes Jorge Alvar (WHO, Geneva, Switzerland). “But there is no single new drug, and this is putting the development of combination therapies far behind what other neglected diseases are doing.”

Today, in cutaneous leishmaniasis, “there’s considerable activity in Syria”, affirms Ashford, “it’s becoming much less of a problem”. Preventative measures in Syria include the distribution of insecticide treated nets. Such nets have proved effective in Kabul, which sees around 40,000 cases of cutaneous leishmaniasis each year. But persuading people to use these nets can be difficult, says Ritmeijer: “in Sudan, the main transmission season for kala-azar is at the end of the hot, dry season—not a time that people want to sleep in bed-nets”.

The deforestation and mass applications of DDT in 1960s India and Nepal were aimed at malaria, but they also resulted in a fall in incidence of visceral leishmaniasis. As antimalarial drives expand, this effect may be replicated; although Ritmeijer points out that “isolated rural areas that are endemic for leishmaniasis are usually not the priority areas that will be targeted for malaria control”.

“We can only be successful if there is basic political commitment from governments”, said Ritmeijer. This is the case in Ethiopia, he told TLID, but other countries have proved less enthusiastic. Bangladesh, Nepal, and India have programmes to eliminate visceral leishmaniasis, but there has been little progress, said Ritmeijer.

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