

Leishmania

Disease: Kala-azar

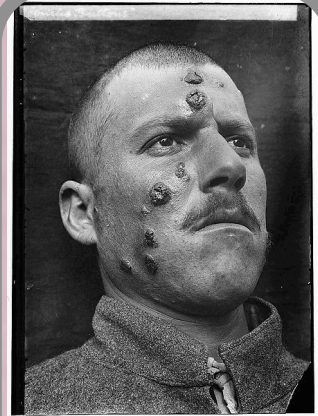
Number of cases worldwide:
12 million per year

Number of deaths worldwide:
750,000 per year (est.)

Life-cycle and transmission:

The *Leishmania* parasite is spread through the bite from a sand-fly. There are two main forms of the infection – cutaneous leishmaniasis and visceral leishmaniasis. Cutaneous infection causes disfiguring lesions on the skin at the site of the sandfly bite whereas in visceral leishmaniasis the parasite establishes infection in the liver causing swelling, loss of function and ultimately death. Importantly, by growing inside white blood cells, the parasite suppresses the immune response and allows it to establish a long-lived infection.

In addition to infecting humans, *Leishmania* can infect other animals. Indeed, up to 40% of dogs in Mediterranean areas test positive for infection.



Ongoing research:

Scientists are studying how *Leishmania* parasites interact with the immune system and cause disease in an attempt to develop new vaccines and medicines. By understanding how parasites become resistant to current drugs, they hope to design better therapies to treat infection. And by understanding how *Leishmania* suppresses the immune system, novel approaches to vaccination are being developed.



The British Society for Parasitology:

The BSP arranges regular conferences where members involved in the cutting-edge research into new cures for leishmaniasis meet to discuss their work.

For more information visit www.bsp.uk.net or contact info@bsp.uk.net