Leishnmaniasis

I MacKay

Leishnmaniasis is a common vector-borne disease tropical disease, caused by the protozoan parasite leishmania which can affect world travellers, especially those touring in scrubland and forests. The sandfly vectors do not usually inhabit beaches as one might expect from the name.

it is a major health problem in many countries with up to 12 million chronic cases and 2 million new ones occurring annually.[1] Various treatments are currently available, including antimonials, liposomal amphotericin B and miltefosine. Most are toxic and require systemic administration.[2,3]

The vector transmitting the disease to humans is the female sandfly which becomes infected if it sucks the blood of infected humans or mammals. in a subsequent blood meal metacyclic promastigotes are injected into the skin from sand fly to host. Factors such as infectivity, pathogenicity and virulence deter-mine if the infection becomes symptomatic and whether cutaneous or visceral infection results. About 70 ofapproximately 1000 sandfly species transmit the disease.

Cutaneous leishmaniasis can be transmitted by both zoonotic and anthroponotic(from human) means, with the former the main transmission mode is and main sources of infection, domestic and feral dogs and rodents.[4]

Presentation

The disease has a diverse range of clinical manifesta-tions divided into three major categories: cutaneous ieishmaniasis (CL), mucocutaneous leishmaniasis (MCL) and visceral leishmaniasis (VL).

Cutaneous ieishmaniasis is one of the most common tropical dermatoses and is endemic in more than 8o countries worldwide. 9o% of cases occur in Afghanistan, Algeria, Brazil, Pakistan, Peru, Saudi Arabia, iran, Brazil and Syria.

The infection usually begins at the site of insect bite as a small erythematous papule about a month after the occurrence of the bite. it increases in size, becoming a nodule that ultimately ulcerates over a period ranging from two to 24 weeks. it becomes the characteristic iesion of CL, ie. erythematous nodule with central crust. The size and progression of the lesion varies with the infecting strain and the immune response of the host. Some heal spontaneously after 6-12 months but other take years to disappear. Flat plaques and hyperkeratotic or wart-like lesions can also develop in severe disease. i Lesions tend to resolve with scar formation.

in **mucosal leishmaniasis,** lesions begin with erythema and ulceration of the nares or the hard or soft palate. Mucosal lesions may become painful and lead to nasal septum or hard palate perforation, nasal obstruction and bleeding.

in **visceral leishmaniasis,** the disease is endemic in more than 6o countries. 90% occurring in India, Bangladesh, Nepal, Brazil,Ethiopia and Sudan.

Patients present with high fever, malaise, anorexia, night sweats and diarrhoea. On physical examination there can be cachexia,lymphadenopathy and massive hepatosplenomegly.

Diagnosis

in CL, diagnosis is confirmed by identification of amastigotes in skin biopsy or smear.

Combining microscopy and culture increases diagnostic accuracy and the culture can identify the pathogen involved.[3]

Treatment

Treatment of choice for most forms of leishmaniasis is the systemic use of Pentavalent antimony, which is present in meglumine antimoniate. CL tends to heal with re-epithelialisation and often scarring. Most Old World lesions tend to self-cure in four to 15 months. Treatment in CL is used to accelerate cure, reduce the risk of scarring and possibly MCL occurrence. The treatment of Old World CL depends on the size and location of the lesion with mild cases not requiring treatment. if few lesions are present, the preferable treatment is intralesional injection ofpentavalent anti-mony Systemic administration in CL such as, iV sodiumstibogluconate) may be considered when prior treatment has failed, or multiple lesions are present.

Side-effects are common with systemic antimony therapy. The most seriousis cardiotoxicity (arrhythmias. And sudden death thus requiring careful monitoring of patients during therapy.[5,6]

Amphotericin B Amphotericin exhibits antileishmanial activity and is an effective rreatment for CL, VL and MCL. Common side effects are renali insufficiency and electrolyte imbalance.

Other therapies for patients with CL include topical imiquimod, cryotherapy, heat therapy and photodynamic treatment.

Ian MacKay is a former GP and Expedition and Medical Officer.

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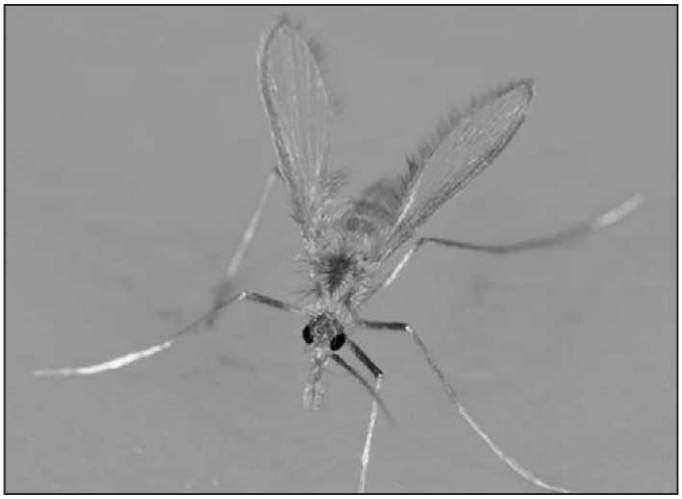
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