Answer to Dermacase *continued from page 1307*

2. Cutaneous leishmaniasis

Cutaneous leishmaniasis (CL) is a serious health problem worldwide and is endemic in nearly 90 countries. The World Health Organization has estimated that there are 1.0 to 1.5 million new cases of CL yearly, and more than 350 million people live in areas where CL is endemic. More than 90% of CL cases are seen in Algeria, Saudi Arabia, Iraq, Iran, Afghanistan, Brazil, and Peru.[1] Cutaneous leishmaniasis is also an increasing threat to travelers visiting these areas. More than 600 cases of *Leishmania major* acquired in Iraq and a few cases of *Leishmania tropica* acquired in Afghanistan have been reported in the United States military.[2] Leishmaniasis is a complex and diverse collection of clinical diseases caused by many species, each with its own geographic distribution, ecology, local mammalian reservoir, and sandfly vectors.[3]

Leishmania major

Leishmania major, a common cause of CL, has been seen in northern and sub-Saharan Africa, the Middle East, southern Russia, central and southern India, and part of China.[3]

Leishmania major exists in reservoirs of burrow-dwelling rodents and is transmitted by *Phlebotomus papatasii* sandflies. Transmission to humans occurs when the promastigotes (mobile form) enter the skin through bites from sandflies. Promastigotes then infect host macrophages and transform into 3- to 4-µm amastigotes that induce a cell-mediated immune response that results in a granulomatous inflammation.[4]

The incubation period ranges from 1 to 12 weeks. A typical lesion is a painless indurated ulcer with a necrotic base. Most patients have 1 to 2 lesions measuring 0.5 to 3 cm in diameter. Most lesions heal over months to years and leave scars.[3]

Diagnosis

Diagnosis of CL relies on identifying amastigotes in tissues or culturing promastigotes. Examination of tissue specimens with a high-power microscope shows amastigotes within the cytoplasm of histiocytes and multinucleated giant cells (Leishman-Donovan bodies). Other techniques for identifying the species, such as polymerase chain reactions, are under investigation.[5]

Treatment

As most CL lesions heal spontaneously over time, and therapeutic agents can be toxic, treatment is recommended only for lesions on cosmetically or functionally important sites (such as the face or hands), for lesions with associated lymphangitis, and for patients with multiple or large persistent lesions.[3]

The mainstay of systemic treatment for CL is pentavalent antimony derivatives, such as sodium stibogluconate and meglumine antimoniate. Most patients should be cured within 3 weeks. Toxicity is common and includes hepatitis, pancreatitis, pancytopenia, and flattening of T waves seen on electrocardiogram.[3]

Miltefosine, a phospholipid derivative, is available in an oral formulation and has been found to be very effective with both cutaneous and visceral leishmaniasis, producing high cure rates.[5]

Follow-up for possible recurrence should continue for up to 6 months after treatment is completed.

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Competing interests

None declared

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