Cutaneous Leishmaniasis Simultaneously Presenting in a Husband and Wife

Introduction: Leishmania is a parasitic disease that presents mainly in three forms: cutaneous, visceral, and mucocutaneous. It is classified as a neglected tropical disease by the CDC. Cases in the United States are markedly rare, with a huge majority of cases occur in South and Central America, the Middle East, and Central Asia. Here we present a rare case of cutaneous leishmaniasis simultaneously presenting in similar sites in a husband and wife.

Case Presentation: A 51 year old female presents to a North Texas dermatology clinic for evaluation and management of a skin lesion located on her left hand. Her husband, a 58 year old male, presents with a similar lesion located on his left hand. The lesion has been present for months and has not regressed. The lesion is irregular, not healing, painful, erythematous, and mild in severity.

The patient states that the onset of the lesion was a couple of months ago when her husband and her were working in their detached garage on their farm. The lesions first started out as a small papule which were described as resembling ant bites. With time, the lesions worsened to open wounds. Nearly three months after the initial insult, the wounds have progressed to a deep ulcer.

On physical examination, a 1.1 cm single irregular pearly pigmented papule that is erythematous and hyperkeratotic is located on the left dorsal wrist. Differential diagnosis includes neoplasm of uncertain behavior and keratoacanthoma. Inspection of other parts of the body do not yield any other notable findings. Shave biopsy is subsequently performed on the lesion. Under microscopy, there is a dense, diffuse inflammatory infiltrate of plasma cells and histiocytes visible in the dermis with clear staining cytoplasm within which are small ovoid organisms recognizable as leishmania.

Diagnosis: The cases are reported to the Centers for Disease Control and Prevention and molecular and immunohistochemical testing is performed. Leishmania PCR and DNA Sequencing reveal Leishmania mexicana as the species responsible and a diagnosis of cutaneous leishmaniasis is made.

Management: Treatment is not initiated at this time as most cases of cutaneous leishmaniasis are self resolving and both patients show improvement on follow up.

Learning Objectives
Describe the classic evolution of a lesion caused by cutaneous leishmanias
Describe the classic histopathological findings seen in cutaneous leishmaniasis
References and Resources