SkIndia Quiz 10
Papulonodular lesions in a Human Immunodeficiency Virus-positive patient

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A 45-year-old male known to be human immunodeficiency virus (HIV)-positive and on anti-retroviral treatment for 3 years, presented with generalized, mildly itchy, firm, shiny, skin colored, papulonodular lesions present symmetrically on face, trunk, buttocks and extremities for 3 months. The lesions were most prominent around ear, ala nasi [Figure 1a], knuckles, elbows [Figure 1b], knee, buttocks [Figure 1c], palms [Figure 1d], and soles. Eroded papulonodules were also seen on hard palate [Figure 1a]. Some of the lesions morphologically resembled molluscum contagiosum [Figure 1c].

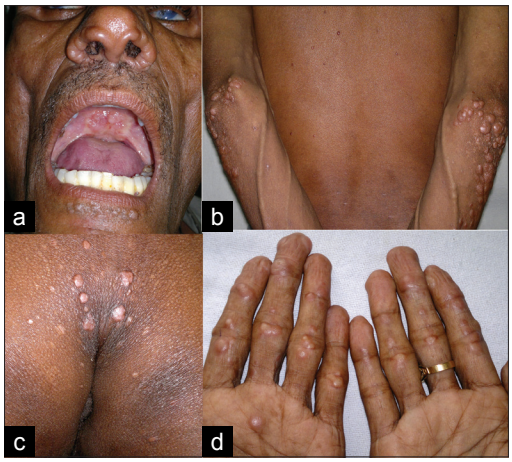

Figure 1: Shiny papules around alanasi, chin and oral cavity (a), elbows (b), buttocks (c), and palms (d)

Generalized lymphadenopathy was noted. He was otherwise in good health. His CD4 count was 15 cells/mm^3 and other blood counts, liver function tests, andrenal function tests were within normal limits. X-ray chest was normal. Abdominal ultrasonography revealed hepatosplenomegaly. Culture from skin lesion was negative. Histopathological examination of the lesions demonstrated epidermal atrophy and granulomatous infiltrate [Figure 2a] with parasitized histiocytes [Figure 2b] in the and entire dermis.

WHAT IS THE DIAGNOSIS?

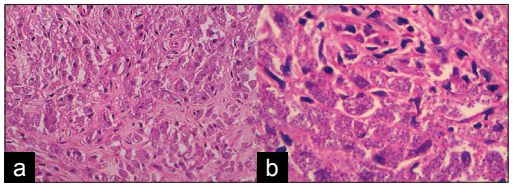

Figure 2: (a) Histiocytic granulomatous infiltrate in the dermis (H & E, ×40), (b) presence of numerous parasitized macrophages in the dermis (H & E, 1000x)

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ANSWER

Diagnosis: Chronic disseminated histoplasmosis

DISCUSSION

Histoplasmosis also called Darling's disease is caused by a dimorphic fungus *Histoplasma capsulatum*.[1] Histoplasmosis is found throughout the world, but is endemic in the central Eastern part of united states especially, Ohio and lower Mississippi river valleys.[2] Several cases have been reported from India,[3-5] although cultural confirmation has been obtained only in some.[2] Histoplasmosis may occur in three major clinical forms: Primary cutaneous, pulmonary, and progressive disseminated histoplasmosis.[6] Since the onset of the acquired immunodeficiency syndrome pandemic, disseminated histoplasmosis has become a more common opportunistic fungal infection.[7] It occurs frequently in HIV-infected persons usually with CD4 counts <75 cells/μl.[6] Disseminated histoplasmosis presents a variable clinical picture depending on the degree of parasitization. Acute and sub acute forms present with fever, lymphadenopathy, hepatosplenomegaly, bone marrow depression and adrenal insufficiency.[7] Chronic disseminated disease, characterized by low parasitization, occurs almost exclusively in adults and may or may not have systemic sign and symptoms.[7] A wide variety of cutaneous lesions including papules, nodules, plaques, ulcers often with annular heaped up borders can be seen in disseminated histoplasmosis. Umblicated papules resembling molluscum contagiosum, erythema nodosum, erythema multiforme, panniculitis, and erythrodermic presentations may also be seen. Oral lesions occurs in about half of all the cases of disseminated histoplasmosis and may be the presenting sign of the disease. Biopsy of a cutaneous or mucosal lesion may be the most rapid way of arriving at the diagnosis as culture may require upto 4-week incubation period[7] and may be negative in many cases.[4] The diagnostic feature in histology is the presence of tiny 2-4 μm spores within the cytoplasm of macrophages and giant cells.

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