

A cauliflower-like lesion on back of the hand

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A healthy 35-year-old woman presented with a 2 months history of a cauliflower-like lesion on her right hand with no further lesions elsewhere. She declared that the disease began with one slightly elevated erythematous nodule with some exudate on its surface then grew slowly to form this vegetative plaque without any associated symptoms of itching or pain.

On her physical examination, an erythematous, indurated cauliflower-like vegetative plaque measuring 3×4cm was noted in association with crusted keratotic surface on dorsum of right hand (figure 1). There was no regional lymphadenopathy.

The findings of general physical examination were unremarkable except for the aforementioned skin lesion.

The patient had no constitutional symptoms and no significant past medical history. The lesion had been treated with cephalexin 2gr/daily for 3 weeks but her condition did not improve.

To confirm the diagnosis, a skin biopsy was achieved (figure 2).

Now, what is your diagnosis? (The answer is on page 159)



Figure 1. Cauliflower-like lesion on the hand

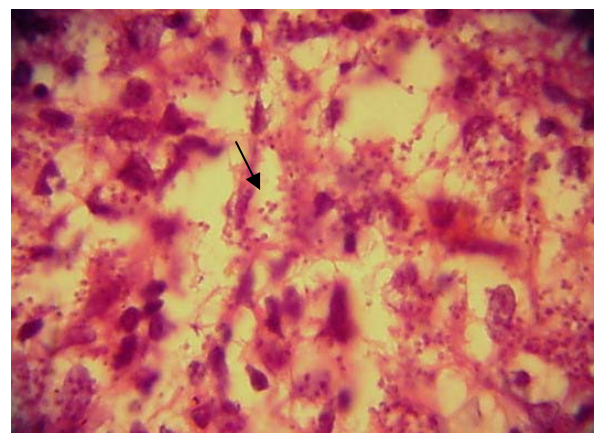


Figure 2. Histopathology of the lesion

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DIAGNOSIS: Leishmaniasis

Our clinical impression was tuberculosis verrucosa cutis and deep mycosis and verrucous carcinoma, but because of giving history of traveling to Kashan city 4 months ago, we considered the diagnosis of leishmaniasis that was confirmed with histopathological findings of amastigote organisms within histiocytes.

The lesion was completely recovered following the cryotherapy once monthly for 2 sessions and a total 8 intra lesional injection of Glucanthim into all sides of the lesion.

Leishmaniasis refers to a group of zoonotic infections caused by several species of flagellated parasite belonging to the order kinetoplastida, genus leishmania, and transmitted by the bite of a fly of the genera phlebotomus and lutzomyia (1). Once inoculation into the skin takes place, the parasite rapidly locates to the phagolysosomes of the mononuclear phagocyte system.

Human infection can be caused by several species of leishmania which are included in four complexes: 1. tropica (l.tropica, l.major, l.minor, l.aethiopica); 2.mexicana (l.mexicana, l.amazonensis, l.pifanoi, l.venezuelensis); 3.braziliensis or vianna (l.brasiliensis, l.guyanesis, l.panamensis, l.nilotica)(2). The first three complexes include the species responsible for cutaneous and mucocutaneous lesions while the donovani complex includes the species responsible for visceral involvement.

Several types of skin lesions and also varied combinations of the following can be found:

- *Ulcerated*: the lesion may be frankly ulcerated with raised borders; they may be nodular and ulcerated (gummatous), with a granulomatous bottom sometimes covered by crust.
- *Impetigo-like*: they start as vesicles or pustules that rupture very fast and are covered by a crust. Parasites are usually extremely abundant in these lesions.
- *Lichenoid*: isolated or grouped follicular papules are sometimes seen, occasionally around a central atrophic area.
- *Sarcoid like*: nodules with a tumid aspect, sometimes resembling sarcoid or tumid lupus erythematosus.
- *Nodules*: these can look wart-like and are usually seen in the extremities.
- *Vegetating*: these can look wart-like and are usually seen in the extremities.
- *Lymphangitic*: sometimes leishmaniasis can be manifested by nodules that disseminate via lymphatic spread, mimicking classic sporotrichosis.
- *Furunculoid*: boil like lesions occasionally seen isolated or near ulcerated lesions.
- *Military*: sometimes small pustular lesions in the thousands are seen, even in immunocompetent hosts infected by l.braziliensis (3).

These infections can be suspected by history of residing in endemic area, or in travelers returned from endemic areas and confirmed by demonstration of amastigotes Giemsa-stained

smear from infected skin by direct microscopy or presence of intracellular amastigotes in the dermis H&E section of skin or growth of promastigotes in Nicolle-Novy-Mac-Neal (NNN) culture medium from lesional specimens.

Most lesions will heal spontaneously, but their duration cannot be predicted in an individual case. It is reasonable to try topical methods of treatment, such as ketoconazole cream, cryotherapy, local heat and laser ablation or use of intralesional sodium stibogluconate antimony for simple lesions (4-6), and to reserve the systemic use of pentavalent antimonies for problematic sources (4), such as patients who are immunosuppressed or complex cases. Sodium stibogluconate solution is usually given parenterally 20mg/kg/day for 28 days (6) or it is prescribed in combination with antimony, 8mg/kg/day for 14 days, plus allopurinol, 20 mg/kg/day (3).

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