

Lobomycosis

Lobomycosis is a very rare infection. It is a self-limited chronic fungal infection of the skin endemic in rural regions in South America and Central America. The prevalence of the disease is high among the Caiabi Indians of Brazil and among the Amoruas tribe of the Casanare state in Colombia. It was the Brazilian physician Jorge Lobo who in 1931 in Recife first described this infection. He gave the name keloidal blastomycosis. The condition was called Lobo disease in 1938, and in 1958 the name lobomycosis was applied.

The organism responsible for lobomycosis has yet to be cultured in vitro. The causative organism is a blastomycosis *Lacazia loboi*, formerly named *Loboa loboi*. The natural reservoir of the pathogen is unknown. Its likely habitat is somewhere in the rural environment because the disease occurs in humans living in rural areas. Soil and vegetation seem to be likely sources of infection. Since the pathogen has been recovered from lobomycotic lesions of *Tursiops truncatus* ("bottlenose dolphins") in Florida and in the Bay of Biscay in Europe, an aquatic reservoir seems likely. A case of dolphin-to-human transmission has been documented in 1983 in a dolphin handler. As for clinical symptoms the name keloidal blastomycosis describes the lesions very well. Lobomycosis often develops at sites of minor trauma but sometimes no history of trauma can be recalled. The disease predominately affects exposed areas and extremities. Skin lesions slowly develop over time. Only after the lesions have become large do patients tend to consult a doctor. The lesions often begin as small papules or pustules, mildly pruritic or resulting in a burning sensation. The disease leads to verrucous or lobulated keloidal nodules and crusty plaques. Lesions are well defined, smooth and painless. They are easily moved around since they lie free over the deeper tissues. Older lesions typically become wart-like and ulcerative with satellite lesions resulting from autoinoculation. The mucosae are spared. The disease does not seem to heal spontaneously. The infection may spread proximally from the extremities suggesting lymphatic dissemination. Patients lack other systemic symptoms and lobomycosis does not affect the general health of the patient although squamous cell carcinoma has been described on old scar lesions. Keloids are the most important differential diagnosis and are much more common.

Diagnosis relies on a skin biopsy. The fungus is abundant in lobomycotic skin lesions. It is a

spherical intracellular yeast 6-12 μm in diameter. The melanin-containing birefringent 1 μm thick cell wall resists digestion by macrophages. Linear or radiating chains of 5-10, even 20 organisms linked by tubules are characteristic. The organism can be seen with haematoxylin and eosin but the best stain is Grocott silver-methenamine which will show the typical yeasts chains. Attempts at medical treatment have failed. Surgery is successful only when the lesion is small and can be fully resected. Repeated cryotherapy appears to be more successful. The present antifungals do not seem promising, but more study is needed. Cases of successful treatment with posaconazole have been described. Clofazimine and dapsone have been tried with limited success.

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