TITLE: CHARACTERIZATION OF ASTEROID BODIES IN BIOPSY SAMPLES OF LOBOMYCOSIS CASES IN RONDÔNIA.

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ABSTRACT: Jorge Lobo's disease, also called Lobomycosis or Lacaziosis, is a deep, chronic, granulomatous fungal infection caused by the adhesion, via trauma, of the fungus Lacazia loboi to the cutaneous and subcutaneous tissues. It is a neglected and endemic disease in the Amazon Basin. Macroscopically, isolated or coalescent nodules with a keloid-like appearance are observed in exposed areas such as the face, ears, arms and legs. Histopathological examination is characterized by a diffuse granulomatous lesion extending from the dermis to the hypodermis, consisting of giant foreign body-like cells, replete with 10 µm rounded fungal structures, foamy macrophages and few lymphocytes. Note also asteroid bodies inside the granulomas. The present study aimed to characterize the asteroid bodies in Lobomycosis lesions of 22 samples from 19 patients diagnosed by histopathological study, in the surgical pathology laboratory of the Hospital de Base Dr. Ary Pinheiro, in Porto Velho/RO. Of these 19 patients, 04 were women. The age group ranged from 34 to 94 years old, coming from the south of Amazonas, Acre and Rondônia. Asteroid bodies were observed in 09 of the 22 samples (40.9%), being 06 of these in men (27.27%) and two women (9.09%). The predominant topography was the external ear pavilion (18.18%), followed by lower extremities (9.09%), upper extremities, chest and soft tissues (4.54% each one). All samples showed severe granulomatous inflammatory activity, with numerous giant cells and histiocytes ranging from few to numerous, in addition to few lymphocytes. The fungal viability index in all samples ranged between 56.41% and 99%, and in samples with asteroid bodies it ranged between 56.41% and 98.25%. Through Transmission electronic microscopy, the asteroid body consists of bundles of dense filamentous structure and myelin figures very similar to those observed in Sarcoidosis, which suggests its lipidic nature, probably originating from organelle remnants such as the endoplasmic reticulum and cell membrane. Asteroid bodies can also be seen in foreign body-like granulomas and sporotrichosis and their significance remains to be elucidated.

Keywords: Lobomycosis, Lacaziosis, asteroid bodies, Jorge Lobo Disease.

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