Advanced Paracoccidioidomycosis Due to Delayed Diagnosis: Clinical and Histopathological Findings from a Case Report

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Paracoccidioidomycosis (PCM) is a systemic mycosis endemic to Latin America, with a higher prevalence in Brazil. It can affect multiple organs, including the oral mucosa, where clinically significant lesions are frequently observed and may contribute to diagnosis. **Objectives:** In this context, the present study aimed to analyze the histopathological features of oral mucosal lesions compatible with PCM. **Methods:** The study was approved by the Research Ethics Committee for Human Beings (protocol number 8,280,571). The samples were correlated with microscopic findings and clinical manifestations described in the literature in order to better understand the implications of late diagnosis of the disease. This is an exploratory and descriptive study with a qualitative approach, based on the analysis of histological slides of oral mucosa diagnosed with PCM. The samples were subjected to Hematoxylin–Eosin (HE), Periodic Acid–Schiff (PAS), and Masson\'s Trichrome (MT) staining, allowing the evaluation of tissue morphology, inflammatory response, and the presence of fungal structures. **Results:** The analysis was conducted descriptively and comparatively, aiming to identify histopathological patterns characteristic of the disease. Histopathological findings revealed a chronic granulomatous inflammatory process, with an infiltrate composed of macrophages, lymphocytes, and multinucleated giant cells. Pseudoepitheliomatous hyperplasia of the epithelium was also observed, along with the presence of micro abscesses and areas of necrosis, indicating persistent inflammatory activity. PAS staining enabled the identification of fungal structures with the characteristic “ship’s wheel” morphology, compatible with the genus *Paracoccidioides* spp., confirming the presence of the etiological agent in the analyzed lesions. Masson\'s trichrome staining demonstrated alterations in collagen fibers, revealing areas of fibrosis and tissue remodeling associated with the chronic progression of the infection. It was also observed that the microscopic findings are directly related to the clinical manifestations described in the literature, particularly ulcerated lesions in the oral mucosa with slow and progressive evolution. The presence of tissue disorganization, necrosis, and fibrosis reinforces the association with late-diagnosed cases, in which the disease presents a greater degree of tissue involvement. The results demonstrate that histopathological analysis is an essential tool for the diagnosis of PCM, especially in cases with nonspecific clinical manifestations. The identification of characteristic microscopic alterations, combined with the recognition of oral lesions, contributes to greater diagnostic accuracy and a better understanding of disease progression. **Conclusion:** Therefore, the importance of early recognition of oral manifestations and histopathological analysis as a fundamental diagnostic tool is highlighted, enabling faster and more effective therapeutic interventions.

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