

Oral squamous cell carcinoma associated with *Candida albicans* infection: case report and diagnostic implications.

MARIA BEATRIZ VEIGA BROCKHOF¹, VICTOR PRADO IRFFI¹, LETICIA MIRANDA RANGEL¹, MARIA TEREZA CARNEIRO PASCHOAL BERNARDES¹, SIMONE CAETANI MACHADO¹, LAUANA APARECIDA SANTOS¹

¹. UNIVERSIDADE PROFESSOR EDSON ANTÔNIO VELANO, ALFENAS, ALFENAS/MG, BRASIL

Introduction: Oral squamous cell carcinoma is the most common malignant neoplasm of the oral cavity, presenting high morbidity and mortality rates, especially when diagnosed at advanced stages. Oral carcinogenesis is multifactorial and, in addition to classic risk factors such as smoking and alcohol consumption, recent evidence highlights the role of the oral microbiota in modulating the tumor microenvironment. In this context, *Candida albicans* stands out as an opportunistic fungus capable of inducing chronic inflammation, producing carcinogenic metabolites, and promoting cellular alterations that may contribute to neoplastic progression. **Objectives:** To describe a case of oral squamous cell carcinoma associated with *Candida albicans* infection, emphasizing diagnostic aspects, potential pathological interactions, and therapeutic implications from a pharmaceutical perspective. **Methods:** This is a descriptive study with a qualitative approach, based on the histopathological analysis of oral mucosa slides obtained from a specialized center. The study was approved by the Ethics Committee (No. 8,319,322). Samples were fixed in 10% formalin, embedded in paraffin, and stained with Hematoxylin-Eosin, Periodic Acid-Schiff, and Picrosirius Red. Microscopic analysis was performed to evaluate morphology, identify fungal structures, characterize the inflammatory infiltrate, and detect epithelial changes consistent with malignancy. The findings were recorded through photo documentation and correlated with clinical evidence described in recent scientific literature. **Results:** Disordered epithelial proliferation, cellular pleomorphism, and invasion of connective tissue consistent with squamous cell carcinoma were observed. An intense chronic inflammatory infiltrate associated with the presence of fungal structures compatible with *Candida albicans* was identified, as evidenced by specific staining. MALDI-TOF analysis confirmed the fungal genus and species (*Candida albicans*). Histological findings suggest an interaction between persistent fungal infection and modulation of the tumor microenvironment, favoring continuous inflammatory processes, tissue remodeling, and possible neoplastic progression. **Conclusion:** The association between oral squamous cell carcinoma and *Candida albicans* infection may negatively influence clinical prognosis by promoting chronic inflammation and hindering early diagnosis. Recognizing this coexistence is essential for differential diagnosis, the development of integrated therapeutic approaches, and the rational use of antifungal agents in cancer patients. The importance of a multidisciplinary approach and the contribution of pharmaceutical care in managing opportunistic infections associated with oral cancer are highlighted.

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