

Epidemiological analysis of craniofacial lesions and correlation between initial clinical and histopathological diagnoses at a craniofacial diagnostic center

Análise epidemiológica de lesões craniofaciais e correlação entre diagnósticos clínicos e histopatológicos iniciais em um centro de diagnóstico craniofacial

Análisis epidemiológico de lesiones craneofaciales y correlación entre diagnósticos clínicos e histopatológicos iniciales en un centro de diagnóstico craneofacial

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Abstract

Objective: This study aims to examine the prevalence and distribution of craniofacial lesions and to evaluate the correlation between preliminary clinical diagnoses and histopathological diagnoses. **Methodology:** This research was conducted at a center specialized in maxillofacial diseases, located in a city within the metropolitan region of São Paulo, during the period from 2018 to 2024. Direct source documentary research in a descriptive, retrospective, and cross-sectional study was carried out. **Results:** This study analyzed the prevalence and distribution of cranio-maxillofacial lesions in 1,620 patients treated at a specialized center in São Paulo. **Conclusions:** Most cases showed a significant correlation of 63.4% between preliminary clinical diagnoses and histopathological results. The findings highlight the importance of complementary examinations, such as biopsies, for accurate diagnosis and appropriate management of oral lesions.

Keywords: Craniofacial lesions; Clinical diagnoses; Histopathological diagnoses; Prevalence; Oral lesions; Biopsies; Maxillofacial diseases.

Resumo

Objetivo: Este estudo tem como objetivo examinar a prevalência e a distribuição de lesões craniofaciais e avaliar a correlação entre os diagnósticos clínicos preliminares e os diagnósticos histopatológicos. **Metodologia:** A pesquisa foi feita em um centro especializado em doenças maxilofaciais, localizado em um município da região metropolitana de São Paulo, durante o período de 2018 a 2024. Realizou-se uma pesquisa documental de fonte direta num estudo descritivo, retrospectivo e transversal. **Resultados:** Este estudo analisou a prevalência e a distribuição das lesões crânio-maxilofaciais em 1.620 pacientes atendidos em um centro especializado localizado em São Paulo. **Conclusões:** A maioria dos casos apresentou uma correlação significativa de 63,4% entre os diagnósticos clínicos preliminares e os

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resultados histopatológicos. Os achados ressaltam a importância de exames complementares, como as biópsias, para a obtenção de um diagnóstico preciso e para o manejo adequado das lesões orais.

Palavras-chave: Lesões craniofaciais; Diagnósticos clínicos; Diagnósticos histopatológicos; Prevalência; Lesões orais; Biópsias; Doenças maxilofaciais.

Resumen

Objetivo: Este estudio tiene como objetivo examinar la prevalencia y distribución de las lesiones craneofaciales y evaluar la correlación entre los diagnósticos clínicos preliminares y los diagnósticos histopatológicos. **Metodología:** Esta investigación se llevó a cabo en un centro especializado en enfermedades maxilofaciales, ubicado en una ciudad de la región metropolitana de São Paulo, durante el período de 2018 a 2024. Se realizó una investigación documental de fuente directa y se trata de un estudio descriptivo, retrospectivo y transversa. **Resultados:** Este estudio analizó la prevalencia y distribución de lesiones cráneo-máxilofaciales en 1,620 pacientes atendidos en un centro especializado en São Paulo. **Conclusiones:** La mayoría de los casos mostró una correlación significativa del 63.4% entre los diagnósticos clínicos preliminares y los resultados histopatológicos. Los hallazgos destacan la importancia de los exámenes complementarios, como las biopsias, para un diagnóstico preciso y un manejo adecuado de las lesiones orales.

Palabras clave: Lesiones craneofaciales; Diagnósticos clínicos; Diagnósticos histopatológicos; Prevalencia; Lesiones orales; Biopsias; Enfermedades maxilofaciales.

1. Introduction

In a study by Souto et al. (2014), 762 cases of maxillofacial injuries were identified in the northeast region of Brazil, analyzing histopathological reports of maxillofacial injuries and considering treatment plans and educational measures to minimize and prevent patient exposure to risk factors as important.

Often, the treatment of carcinomas in the maxillofacial region involves radiochemotherapy treatment (Tanajura & Nascimento, 2024), but prior to this, diagnosis through clinical pathological study of diseases in the maxillofacial region is important (Ogura et al., 2001). In an initial study, it is important to understand the causes and diagnoses already made to formulate subsequent studies aimed at therapies and the search for new knowledge on a topic.

This study aims to examine the prevalence and distribution of craniofacial lesions and to evaluate the correlation between preliminary clinical diagnoses and histopathological diagnoses.

2. Methodology

Study Design: This is a descriptive, retrospective, and cross-sectional study in a direct source documental study of quantitative nature (Toassi & Petry, 2021; Pereira et al., 2018; Estrela, 2018) based on clinical data obtained from patient records treated at the diagnostic center over six years. Para analizar los datos se utilizaron estadísticas descriptivas simples, utilizando valores medios, clases de datos, frecuencia absoluta y frecuencia porcentual relativa (Vieira, 2021; Shitsuka et al., 2014; Akamine & Yamamoto, 2009).

This research was conducted at a center specialized in maxillofacial diseases, located in a city within the metropolitan region of São Paulo, during the period from 2018 to 2024.

The variables examined include demographic information (such as age and gender) and clinical characteristics (such as the anatomical location of lesions, diagnostic procedures performed, including biopsies, and final diagnoses) (Castro, 2021).

3. Results and Discussion

The study included 1,620 patients, of whom 970 were female (59.9%) and 650 were male (40.1%), with ages ranging from 5 to 87 years, and a median age of 50 years. Male patients are predominant. In the study by Souto (2014), there was no separation by sex, and therefore, we cannot compare this issue with this author. In the study by Silva et al., (2018), which was carried out considering a total of 1,706 patients between 0 and 12 years old, more than half, 51.9%, were female and therefore, it can be considered that it was a mere coincidence that there were more male patients in this present study and also, according to Ibid (2018) “There is no agreement between studies because of the lack of a standardized pediatric age range”.

The most frequently affected areas were the oral mucosa (30.5%), lips (13.2%), and tongue (10.8%). The most common clinical manifestations were nodules (42.5%), plaques (9.1%), and macules (8.3%), while 11.7% of the cases did not have detailed clinical descriptions. The average duration of the lesions was 28.6 months, ranging from 2 to 345 months. The most frequent clinical hypotheses were fibroma (22.3%), fibrous hyperplasia (18.2%), cysts (12.7%), and squamous cell carcinoma (3.1%), while 4.8% of the cases lacked a documented clinical hypothesis. Histopathological diagnoses confirmed fibroma in 24.8% of cases, fibrous hyperplasia in 15.3%, cysts in 6.2%, and squamous cell carcinoma in 2.3%. The correlation rate between preliminary clinical diagnoses and histopathological diagnoses was 63.4%, like studies of Oliveira Mendonça, (2017) and Ochsenius et al. (2003).

4. Conclusion

This study highlighted the distribution of oral lesions in an urban population from the metropolitan region of São Paulo, demonstrating that most cases showed a significant correlation between the initial clinical diagnoses and histopathological results.

These findings reinforce the importance of performing complementary exams, such as biopsies, to ensure diagnostic accuracy and appropriate management of oral lesions as stated by de Oliveira Mendonça (2017) and Sousa et al. (2018). As this was an initial study, it is considered that further studies and comparisons with more authors are necessary to achieve more knowledge on the subject.

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