# Dermis Osteoma - Case Report

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#### Abstract

Osteoma is a benign osteogenic lesion, composed by compact or cancellous bone. Its etiology seems to be unknown but some authors have suggested three theories to its elucidation: developmental; infectious; and traumatic. It presents slow growing and it can be normally found in craniofacial region and rarely in other bones. The diagnosis is made incidentally because there is no pain complaining. It is reported here, the occurrence of this pathology in dermis region, not previously found in literature. A 31 years old man, come to fhe Oral and Maxillofacial Service complaining about a painless swelling in his face. Due to clinical and radiographic findings a possible diagnosis of osteoma in right zygomatic bone region, was made.

Keywords: Osteoma; benign bone tumor; dermis osteogenic lesion.

## **INTRODUCTION**

Osteoma is a benign osteogenic lesion, composed by compact or cancellous bone. It is normally placed in craniofacial skeleton, and rarely in other bones. Osteoma presents slow growing, diagnosed incidentally because there is no pain complaining <sup>1, 2</sup>. In gnathics bones can appear in bone's surface, as mushroom-like masses pedunculated sessile (perioteum osteoma), or located in medullar space (endosteum osteoma). There is few information regarding to gender predilection <sup>3</sup>. According to C.J. Lin, Y.S.Lin and Kang <sup>4</sup>, males has a slightly

predominance, with more incidence between second and fourth life decade.

The etiology seems to be unknown, but some authors have been suggested three theories to its elucidation: developmental; infectious; and traumatic <sup>2</sup>. Solitary osteomas of the facial esqueleton are quite rare, although multiple osteomas of the jaws have been reported as part of Gardner's Syndrome <sup>5</sup>.

There's been mentioned osteoma's case in different sites of maxillofacial region. In decrease order, osteomas can be seen in frontal

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sinus (more than 50%), followed by ethmoidal sinus, maxillary sinus, sphenoidal sinus, maxilla and inferior jaw <sup>2, 5, 6</sup>. Furlaneto, Rocha e Heitz <sup>7</sup> referred a rare osteoma in zigomatic arch region.

It's reported here, the occurrence of this pathology in dermis region, not previously found in literature.

## CASE REPORT

A 31 years old white man, sought for Oral and Maxillofacial department of Dentistry University in Porto Alegre-RS (PUCRS), complaining about a painless swelling in his face. The patient related that had not sure about the starting swelling time but he assumed that was around two years. He was in good health and was completely asyntomatic, with no history of previous facial trauma or contributory medical factors. Physical examination revealed a small, well-defined mass in right zygomatic bone region, which could be easily palpable.

Before surgery, Waters and Hirtz extraoral radiographic examination were taken (FIGURE 1; FIGURE 2). It could be seen a mixed radiolucent/radiopaque lesion around 25 mm. Due to clinical and radiographic findings as well as the slow progression history, a possible diagnosis of osteoma in right zygomatic bone region, was obtained.

Under general anesthesia, the bony lesion was completely removed, with no intercurrence. This lesion was not connected to the bone (FIGURE 3); it was located between the zigomatic arch, under the skin and on the muscles. During the surgery procedure, the diagnosis was changed to dermis osteoma (FIGURE 4). Microscopic examination of the specimen confirmed the proposed diagnosis. It was performed six months follow up, with no recurrence.



Figure 1- X ray showing a radiopac



Figure 2 - X ray lesion image



Figure 3 - Surgery approach showing the position under the skin

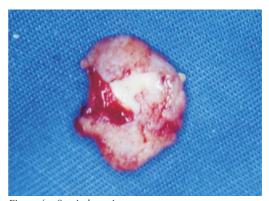


Figure 4 - Surgical specimen

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### DISCUSSION

There is an agreement between searched authors that osteoma is a benign lesion, composed of mature bone (compact or medullar), with slow and painless growing, almost exclusively found in craniofacial esqueleton <sup>1; 2, 3, 4, 5, 6</sup>.

Sayan and others <sup>8</sup>, reported 35 osteomas, 10 in frontal bone, 6 in mandible body, 3 in frontal sinus, 3 in external auditory canal, 3 in maxillary alveolar process, 2 in hard palate, 2 in sphenoid bone, 2 in occiptal bone, 1 in condyle mandible process, 1 in coronoid process, 1 in maxillary sinus and 1 in orbit. The patient's age ranged from 14 to 58, including 23 males and 12 females. This paper agree with C.J.Lin, Y.S. Lin and Kang <sup>4</sup>, when it's referred a bigger occurrence in males, however disagree about the more prevalent age, therefore it's related more cases between second and fourth decade of life. Longo and others <sup>5</sup>, Akmansu and others <sup>6</sup>, and Riad and others <sup>2</sup>, described frontal sinus as a region with more occurrence, disaccording to Sayan and others <sup>8</sup> research.

This case corroborates the literature according to more assailed age, and to gender predilection. It's assumed that the lesion location is rare, since than it wasn't found another case in similar region.

# Osteoma Dérmico – Relato de Caso

#### Resumo

O osteoma é uma lesão osteogênica benígna que pode ser contituída por osso compacto ou esponjoso. A etiologia parece ser desconhecida, muito embora diversos autores tenham sugerido determinadas origens para justificar sua elucidação, entre as quais: congênita, infecciosa e traumática. Esta lesão apresenta crescimento lento, podendo ser encontrada, normalmente, na região crânio-facial, podendo ocorrer, raramente, em outros ossos. O diagnóstico é feito acidentalmente, uma vez que esta lesão não é acompanhada de alguma queixa de dor. O presente estudo se refere à ocorrência desta patologia em região dérmica, achado que não foi relatado até então na literatura científica. Um homem com 31 anos de idade, procurou o Serviço Bucomaxilofacial queixando-se de edema indolor na face. A combinação entre os achados clínicos e radiográficos fundamentou o diagnóstico de osteoma em região zigomática.

Palavras chaves: Osteoma; tumor ósseo benigno; lesão dérmica osteogênica.

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