Neuralgia and atypical facial pain related to aseptic osteonecrosis (FDOJ) Case report

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Introduction

The concept of perineural inflammation in the mandible is old and well described in the literature, but it may be associated with bone morphological changes such as FDOJ (Fatty degenerative osteonecrosis in jawbone). FDOJ is a cavitational osteonecrosis, bone mineralization disorder, occurs in the medullary trabecular bone with aseptic, ischemic, sometimes asymptomatic nature, an immunologically altered chronic bone condition with expression of pro-inflammatory chemokines RANTES. Overexpression of this chemokine activates signaling pathways in the immune system, a fact that may contribute to neuralgias or atypical facial pain.

Objectives

To evaluate in a case study the clinical and symptomatic results after performing FDOJ removal surgery.

Case report

This case study shows the need for a diagnosis of atypical pain associated with cavitational osteonecrosis and its surgical resolution. Female patient 31a, diagnosis of atypical facial pain, inconclusive neuralgia, without involvement of V cranial nerve. Shocking, limiting, radiating pain for 3 years.

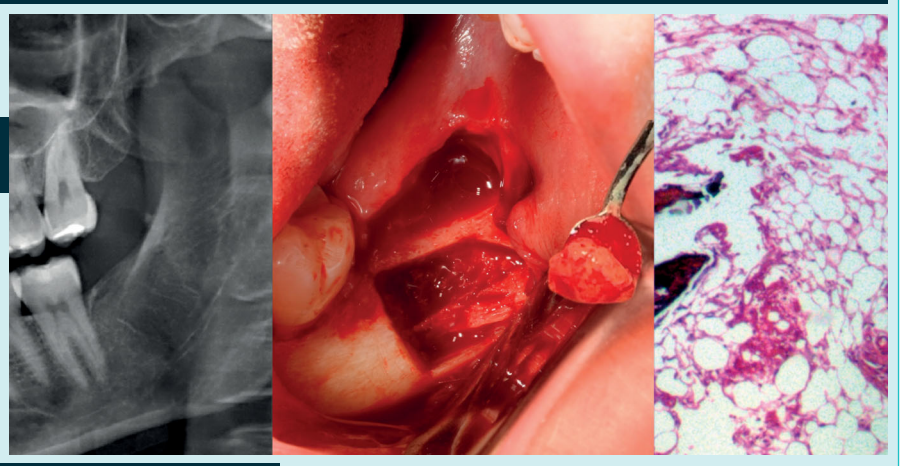

Fig.: 28, 38 área

Materials and methods

After analysis of bone density using CBCT images, the patient underwent cortical osteotomy and curettage of the altered alveolar bone in regions 18, 28, 38 and 48. The material removed was subjected to histopathological analysis to confirm the FDOJ.

Results

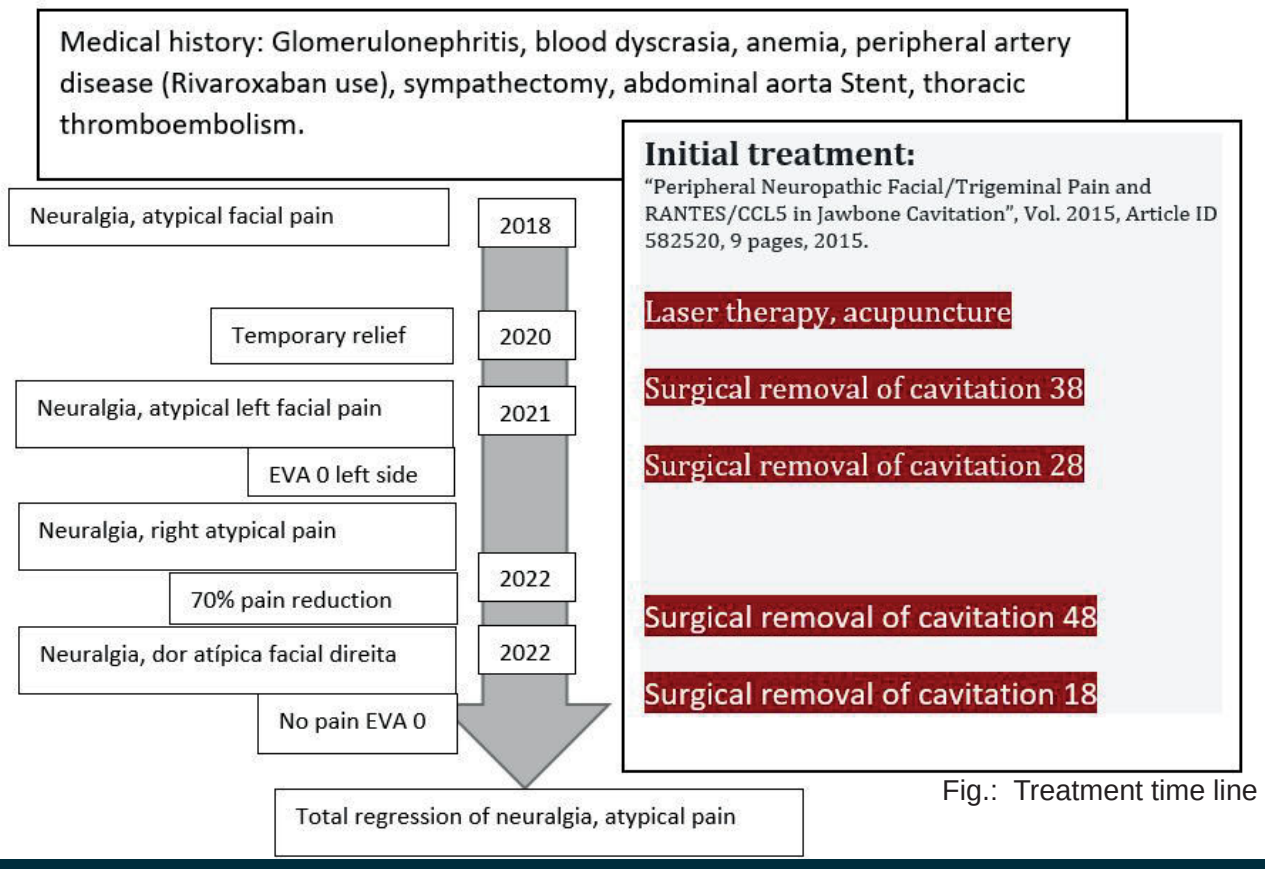

Fig.: Treatment time line

100% reduction pain. No recurrences after 1 year of follow-up. EVA at 0. Patient – "*Since I started to feel pain, I sought several specialists without success. After the surgery I had a great recovery, I had no more pain. There's no better feeling than do not feell a pain like this.*" *The patient gave informed consent for the publication of this case.*

Discussion

- RANTES/CCL5 inhibit opioid receptors (they play an important role in modulating pain in peripheral neurons and CNS), amplifying pain signals and increasing the pro-inflammatory response in microglia, generating neuroinflammation. In this context, it makes sense to reduce facial pain and trigeminal neuralgia by surgically cleaning the FDOJ in RANTES signaling areas.
- A significant limitation refers to the detection of this pathology. The lack of local inflammatory signs and radiographic image impairs the diagnosis of osteonecrosis. The lack of knowledge of the relationships of the chemokine RANTES by dentistry can be a challenge in solving these cases.

Conclusão

With the correct diagnosis of Cavitational Osteonecrosis and surgical FDOJ removal, it is possible to bring a consistent improvement in the patient's pain condition related to FDOJ. Bone density analysis of edentulous regions with tomography and transalveolar ultrasound can be a decisive diagnostic complement in the resolution of neuralgias and atypical facial pain.

References

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