

## **Answering Reviewer's comments:**

**Reviewer 1:** The article is innovative.

**Response:** Thank you for your comment.

**Reviewer 2:** It is nice to read through this research representing a COF lesion in the mandible, which has been diagnosed early based on symptoms that appeared in adjacent structures. Regarding the manuscript format, it is a well-structured paper in accordance with the journal guidelines for writing a Case report. The CARE checklist is provided, and it is complete. The abstract word limit is respected.

1. The introduction is well-written; however, the merit of this study has not been shown clearly. Please justify the merit of the case report in the instruction as well as in the discussion. What feature has made your study specific to be a case report?

**Response:**

### **Introduction**

Ossifying fibroma is one of the benign fibro-osseous lesions based on Waldron's classification, which predominantly affects the craniofacial region.<sup>1</sup> It is considered a rare tumor, with most lesions affecting the mandible region, particularly the molar and pre-molar areas. It predominantly affects females with an incidence of 5:1 ratio compared to males and is commonly encountered between the second to fourth decade of life. It has characteristics of a slow-growing tumor, sometimes asymptomatic and expansive lesion, which, if left untreated, may lead to signs and symptoms caused by enlarged mass and significant involvement to the adjacent vital structures.<sup>2</sup> During its early stage, the tumor may appear small and well-demarcated, which can be safely enucleated. However, larger tumors require more extensive resection, in which reconstructions are sometimes needed.<sup>3</sup> In this study, we intend to report a clinical presentation of the cemento-ossifying fibroma (COF) on the patient's left mandible, which was treated with lip-splitting incision

and tumor excision through marginal mandibulectomy. This study aims to share our experience in dealing with mandible COF and associated surgical approach.

2. In the case presentation, please explain whether the patient has any medical history or family history.

### Response:

#### *History of past illness*

The patient had no history of trismus and difficulty in masticating, although pain occasionally emerged during eating. Patient also did not have any previous medical conditions and other family history.

3. In the treatment section, you have not mentioned anything about the reconstruction plan after surgery. Will the bone be grafted for reconstruction in your future rehabilitation treatment plan? Or do you wait to see whether the periosteum will construct the bone? Also, have you preserved the periosteum during the surgery? In the treatment section, please clarify whether you have used fixation and plate in order to avoid soft tissue collapse after surgery.

### Response:

#### **Treatment**

The patient was then admitted two days prior to the elective surgical procedure. On the operation day, the patient was positioned supine with her head slightly tilted to the opposite side. The patient then underwent general anesthesia with nasotracheal intubation. Lip-splitting incision was performed and extended towards the patient's left angulus mandibulae. After the left mandible and the bony tumor were completely exposed, marginal mandibulectomy was performed. Marginal mandibulectomy was the preferred option in order to achieve 0.5 cm tumor margins. As we preserved the periosteum, we hoped the remaining periosteum will naturally construct the bone defects, and reconstruction won't be necessary in the future. Mandible plate fixation was not

performed, as we maintained the integrity of remaining mandible bone so it will not cause soft tissue collapse, which we observed in the next upcoming follow up examinations. The wound was then washed with normal saline solution, minor bleeding was controlled, and drain insertion and wound closure using a subplatysmal flap were performed (**Figure 3**). The excised tumor was sent for pathology examination and described as an ossifying fibroma. From 10x10 magnification, it showed the bone trabecular component and fibrous connective tissues along with fibroblast cell proliferation, and from 10x40 magnification, it showed as spindle-shaped cell with cigar-shaped nucleus, eosinophilic cytoplasm and smooth chromatin (**Figure 4**).

4. In the follow-up section, please clarify whether you have taken a 3D image ( CBCT or CT) to determine the lesion recurrence after 3 months following the surgery. Moreover, did you follow the patient only after 3 months? Are there any other follow-up sessions?

#### **Response:**

#### **Outcome and Follow-up**

The patient had an uneventful postoperative clinical course with no postoperative complications. The drain was removed in three days postoperative and showed no further rebleeding. At a follow-up visit in three months after the surgery, the pain was resolved and she was asymptomatic. Panoramic radiographs were performed every 6 months and CT scan with 3D images were taken one year after surgery with satisfactory results without any recurrent lesions.

5. in rare cases, the mandible bone has been regenerated naturally and gradually after surgery because of the periosteum's natural ability. Considering the periosteum during surgery, especially for COF as a lesion with a low recurrence rate is crucial. Even if you have not considered it in your surgery, I think it is essential to discuss this issue in order to make your discussion more comprehensive. In addition to the surgical approaches that you have mentioned in the discussion, you should add some information about the enucleation approach which can lead to bone regeneration in rare cases. With this regard,

please refer to this paper which is recently published, and, in my opinion, you should update your discussion with this recently published information about COF surgery. “ Complete Spontaneous Bone Regeneration following Surgical Enucleation of a Mandibular Cemento-Ossifying Fibroma” <https://doi.org/10.1155/2022/7902602>. In the discussion, you have a short literature review. I think you should have a more comprehensive search to include more articles and discuss their differences and similarities with your own study.

### **Response:**

#### **Discussion**

In other studies, all mandible COFs are treated locally. Kaur in 2019 reviewed 16 Maxillofacial COF cases, half of them affect mandible region. Ten out of 16 cases were treated with enucleation and curettage, five cases were resected locally and 1 case was resected en bloc with other involves structures. All patients did not develop any recurrences from follow up observation.<sup>8</sup> There were other studies who managed this case extensively either by segmental or even hemimandibulectomy due to its massive size and mandible plate reconstructions were performed.<sup>4-7</sup> One study reports a similar approach from our study, in which the tumor was safely excised with preservation of inferior mandible border and without any reconstruction. Unfortunately, the outcome and follow up reports were not mentioned.<sup>11</sup>

One study interestingly preserved the mandible periosteum after large COF enucleation. They used periosteum osteogenesis potential to induce bone regeneration with satisfactory result and no COF recurrence after 3 years of follow-up. It is based on periosteum ability as barrier to prevent soft tissue migration, periosteum bone cells and its rich vascular supplies to support adequate bone growth. With periosteum preservation, we can expect bone restoration process from post-excision defect area in our patient and reconstruction won't be necessary, although Shirafkan and associates did reconstruct with mandible plate and screws.<sup>12</sup>