**Critically Appraised Topic (CAT)**

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| **Project Team:**  |
| **5B-3** |
| **Project Team Participants:**  |
| **Margaret Schlindwein, Alexis Brady, Samantha Mandel, Lester Cednick** |
| **Clinical Question:** |
| **What is the differential treatment plan for a peripheral ossifying fibroma?** |
| **PICO Format:** |
| **P:** |
| **Ill-defined lesion** |
| **I:** |
| **Excisional biopsy** |
| **C:** |
| **Incisional biopsy** |
| **O:** |
| **Prevent spread of disease** |
| **PICO Formatted Question:** |
| **In a patient with an ill-defined lesion, does incisional versus excisional biopsy better prevent spread of disease?** |
| **Clinical Bottom Line:** |
| **Excisional with adjunctive techniques better prevents spread of disease, but incisional better preserves function and esthetics.** |
| **Date(s) of Search:**  |
| **9/10/20** |
| **Database(s) Used:** |
| **PubMed** |
| **Search Strategy/Keywords:** |
| **Peripheral ossifying fibroma, recurrence rate, conservative treatment, oral pathology** |
| **MESH terms used:** |
| **Fibroma, Ossifying/surgery; Fibroma, Ossifying; Surgical procedures, operative** |
| **Article(s) Cited:** |
| **1.** Slusarenko da Silva Y, Tartaroti NA, Sendyk DI, Deboni MCZ, Naclério-Homem MDG. Is conservative surgery a better choice for the solid/multicystic ameloblastoma than radical surgery regarding recurrence? A systematic review. *Oral Maxillofac Surg*. 2018;22(4):349-356. doi:10.1007/s10006-018-0715-92. B.R. Chrcanovic, R.S. Gomez, Juvenile ossifying fibroma of the jaws and paranasal sinuses: a systematic review of the cases reported in the literature, International Journal of Oral and Maxillofacial Surgery, Volume 49, Issue 1, 2020, Pages 28-37, ISSN 0901-5027, <https://doi.org/10.1016/j.ijom.2019.06.029>.3. Yadav R, Gulati A. Peripheral ossifying fibroma: a case report. *J Oral Sci*. 2009;51(1):151-154. doi:10.2334/josnusd.51.1514. Titinchi F, Morkel J. Ossifying Fibroma: Analysis of Treatment Methods and Recurrence Patterns. *J Oral Maxillofac Surg*. 2016;74(12):2409-2419. doi:10.1016/j.joms.2016.05.018 |
| **Study Design(s):** |
| **Systematic Reviews, Retrospective Case Study, Case Report** |
| **Reason for Article Selection:** |
| The articles chosen discuss excisional versus incisional biopsy in relation to ossifying fibromas. They also examine how each surgery can effect the recurrence of these lesions. |
| **Article(s) Synopsis:** |
| 1. This systematic review was done to determine if conservative surgery of primary solid/multicystic ameloblastoma is capabale of decreasing recurrence rate as effectively as radical surgery. 7 studies were looked at with meta-analysis. Radical surgery is the classic treatment to reduce recurrence because conservative surgery, such as curettage followed by adjunctive therapy, is associated with increased recurrence rate. The study concluded that conservative surgery doesn’t reduce recurrence rate as efficiently as radical surgery for primary SMA.
2. **The purpose of this article was to compare clinical and radiological features of juvenile ossifying fibroma (JOF), trabecular JOF, and psammomatoid JOF. The study included 185 studies in their quantitative synthesis, which were found through database searching and other sources. It was found that enucleation and curettage were associated with a high recurrence rate while enucleation with either curettage or peripheral osteotomy had lower recurrence in comparison. Complete resection resulted in only one notable case of recurrence. Overall with a 1-2 year period of observation, around 20% of lesions recurred. The study states the treatment of choice should be enucleation followed by peripheral osteotomy/curettage to avoid disfigurement. The authors noted that many cases they analyzed had a short follow-up period, which could lead to an underestimation in the recurrence of JOF cases. Further studies were indicated.**
3. **This case report discusses a 35 year old female patient who presented with a lump behind her mandibular anterior right side. The lump clinically appeared as exophytic, pinkish with a strawberry-like appearance. The lump was removed by excisional biopsy under local anesthetic; 9 months later the patient was recalled for monitoring and no recurrence was noted. Diagnosis was decided to be peripheral ossifying fibroma. The article states treatment of choice is total surgical excision of the mass with meticulous root planing and curettage to the area to prevent recurrence. Regular follow-up is required for the lesion as recurrence rate has been noted to be 8-20%.**
4. **This article aimed to determine the clinical and radiologic features of ossifying fibroma patients. The author’s also reviewed management methods and recurrence patterns due to high recurrence rates. The article included 61 cases with the patient pool being mostly female and younger than 40 years old. The most common method listed for mangain ossifying fibroma was surgical excision. Small well-defined lesions were excised by enucleation and curettage while incisional biopsy was performed for ill-defined lesions. To decide on the surgical approach many things should be considered, including size, location, age, and accessibility. In conclusion, surgical curettage is an acceptable management protocol with a low rate of recurrence. Resection should be reserved for aggressive and recurrent lesions. Conservative curettage for small, well-defined lesions and enucleation for large well-defined lesions.**
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| **Levels of Evidence:** (For Therapy/Prevention, Etiology/Harm) See <http://www.cebm.net/index.aspx?o=1025>[ ]  **1a** – Clinical Practice Guideline, Meta-Analysis, Systematic Review of Randomized Control Trials (RCTs)[ ]  **1b** – Individual RCT[x]  **2a** – Systematic Review of Cohort Studies[ ]  **2b** – Individual Cohort Study[ ]  **3** – Cross-sectional Studies, Ecologic Studies, “Outcomes” Research[ ]  **4a** – Systematic Review of Case Control Studies[ ]  **4b** – Individual Case Control Study[x]  **5** – Case Series, Case Reports[ ]  **6** – Expert Opinion without explicit critical appraisal, Narrative Review[ ]  **7** – Animal Research[ ]  **8** – In Vitro Research |
| **Strength of Recommendation Taxonomy (SORT) For Guidelines and Systematic Reviews**See article **J Evid Base Dent Pract 2007;147-150**[ ]  **A** – Consistent, good quality patient oriented evidence[x]  **B** – Inconsistent or limited quality patient oriented evidence[ ]  **C** – Consensus, disease oriented evidence, usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening |
| **Conclusion(s):** |
| **Exsional biopsy with adjunctive therapy provides the best outcome to reduce recurrence. Incionsal biopsy is less debilitating to the patient overall, however. More studies need to be done on how different surgical procedures effect the recurrence of peripheral ossifying fibroma.**  |