

# Conservative versus radical treatment of ameloblastoma: A 14-year study in Kedah

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## ABSTRACT

**Introduction:** Ameloblastoma is a locally aggressive benign odontogenic tumour of the jaws. The treatment regimens for ameloblastoma are controversial, and opinions vary as to how radical it should be. The objective was to identify the factors associated with the recurrence following treatment of these lesions. **Methods:** A cohort study was conducted for patients who underwent treatment for ameloblastoma at the Sultan Abdul Halim Hospital and Sultanah Bahiyah Hospital, from 2007 to 2021. **Results:** A review of the records yielded 51 patients with histopathologically proven ameloblastoma. The recurrence rate for conventional ameloblastoma was 7.1% after radical treatment and 21.6% after conservative treatment. There was no significant association between treatment modalities and tumour recurrence ( $p>0.05$ ), although there were trends toward lesser recurrence rates among those undergoing radical treatment. None of the variables, sex, race, and site of tumour were found to lead to the increase in recurrence rates ( $p>0.05$ ). **Conclusion:** A recent systematic review and meta-analysis showed that the pooled recurrence rate for conventional ameloblastoma was 8% after radical treatment and 41% after conservative treatment. Although radical treatment can lower the recurrence rate, it jeopardises the functional and cosmetic outcomes of the jaws. Our data indicated that the conservative treatment could preserve the appearance and function well, at the same time keeping the risk of recurrence lower than currently published figures. Therefore, we would suggest conservative treatment for primary tumour and young patients while radical treatment was reserved for recurrence, very large lesions with substantial cortical perforation and maxillary ameloblastoma.