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Decompression as a treatment of odontogenic cystic lesions in children.

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Abstract

PURPOSE: To evaluate the efficiency of decompression in treating odontogenic cystic lesions of the jaws in children. **MATERIALS AND METHODS:** All consecutive odontogenic cysts occurring in children and treated by decompression from 1994 to 2009 at 1 maxillofacial center were included in the present study. Clinical data included age, gender, jaw, histopathologic diagnosis, and decompression time. Radiologic data from panoramic radiographs before and after decompression included tooth involvement, locularity, location, involvement of adjacent vital anatomic structures, and cyst area. **RESULTS:** Thirty-two odontogenic cystic lesions from 26 children (14 boys [53.8%] and 12 girls [46.2%]) treated with decompression were included. The average age at the time of presentation was 11.6 ± 3.3 years (range, 7 to 18 yr). The mandible was involved in 13 cases (40.6%) and the maxilla in 19 (59.4%). All cysts were unilocular at presentation. Twenty-seven cysts (84.4%) showed tooth involvement. The diagnoses consisted of dentigerous cysts (20 [62.5%]), keratocysts (9 [28.1%]), and radicular cysts (3 [9.4%]). The mean decompression period was 7.45 ± 2.6 months (2 to 14 months). The mean standard lesion area index changed from 12.7 ± 0.9 mm² (3.6 to 44 mm²) before compression to 2.3 ± 4.3 mm² (0 to 22.3 mm²) after decompression. The mean percentage of reduction (POR) was $82 \pm 16\%$ (49 to 100%). The POR was ranked as good in 22 lesions (69%), moderate in 9 lesions (28%), and poor in 1 lesion (3%). Surgery was performed for 15 lesions (47%). **CONCLUSION:** Decompression results in good regeneration potential of the bone in the developing craniofacial skeleton of children. Children might benefit from a less invasive surgical protocol.