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DIAGNOSTIC IMAGING OF DENTIGEROUS CYSTS

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ABSTRACT:

Background- Dentigerous cysts are the second most common odontogenic cysts after radicular cysts.

Methods- DC cases of 30 patients who applied to our hospital .who had histopathological diagnosis were examined retrospectively. The patients' clinical information, plain graphies, CT examinations, operation notes and histopathological assessment results were recorded.

Results- The ages of 30 patients who were found to have DC were between 15 and 65 Years, and the average of their ages was 34 (±12.50). 14 patients were female, and 16 were male. Male/female ratio was 1.30:1. Of the 30 cysts, 18 were in the mandible and 12 were in the maxilla. 56.66% of DCs were smooth whereas 33.33% had scalloped borders on panoramic radiography.

Conclusion- The cysts had a tendency to displace associated and/or adjacent teeth. Panoramic radiography is important in fi nding out these cysts.

Keywords- Dentigerous Cyst, Jaws, Imaging.

INTRODUCTION:

Dentigerous cysts are the second most common odontogenic cysts after radicular cysts. They are benign odontogenic cysts that are associated with the crowns of permanent unerrupted teeth; usually single in occurrence and located in the mandible. Although most common discovered in the second and third decades, they may be found at any age[1-2].

Dentigerous cyst (DC) is a developmental jaw cyst associated with a crown of unerupted/impacted tooth. DC is usually seen as a unilocular, well-defi ned radiolucent area clinging to the tooth in the cemento-enamel junction.[3] The borders may be scalloped and positioned centrally or laterally on dental crowns.[4,5] DC has a tendency to teeth displacement and resorption. DC may resemble odontogenic keratocyst (OKC), unicystic ameloblastoma (UA), and ameloblastic fi broma on plain radiography. Computed tomography (CT) provide important information for the differential diagnosis.

Material and methods

DC cases of 30 patients who applied to our hospital .who had histopathological diagnosis were examined retrospectively. The patients' clinical information, plain graphies, CT examinations, operation notes and histopathological assessment results were recorded.

Follicular space and the sizes of the cysts were measured in the panoramic radiograph. For follicular space, the distance from a dental crown to the cyst wall was measured, and for cyst size,

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the measurement was made at where the cyst was the widest.

Results

The ages of 30 patients who were found to have DC were between 15 and 65 Years, and the average of their ages was 34 (±12.50). 14 patients were female, and 16 were male. Male/female ratio was 1.30:1. Of the 30 cysts, 18 were in the mandible and 12 were in the maxilla.

56.66% of DCs were smooth whereas 33.33% had scalloped borders on panoramic radiography.

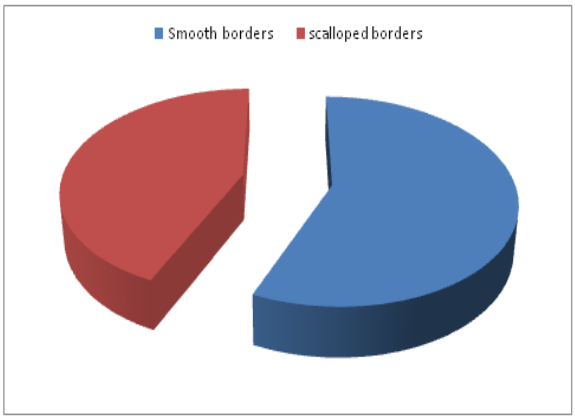

Fig.1: Panoramic radiography findings

Discussion

Dentigerous cyst are the second most common odontogenic cysts of the jaws.[1] DCs is more common in second and third decades.[3] The average age of our study was [2]. Although DC was reported to occur more frequently in men than in women, the ratio of W/M was found to be 1.30 in our study.

Dentigerous cysts are mostly seen in panoramic radiographies as unilocular, well-defined radiolucent areas that show cortication.[4] If they are infected, they may be ill defined.[5] Often their borders are smooth; however, they may be scalloped in big cysts. Motamedi and Talesh[6] reported that 92.5% of the cysts they examined were unilocular and smooth borders while 7.5% were scalloped borders. Tsukamoto *et al.*[7]examined DC cases with panoramic radiography, and they reported that 84% of the cases had smooth borders, while 16% had scalloped borders, and they found that the ratio of smooth/scalloped was 5.4:1.

Conclusion

The cysts had a tendency to displace associated and/or adjacent teeth. Panoramic radiography is important in fi nding out these cysts.

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