LETTER TO THE EDITOR

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Multiple pericoronal radiolucencies affecting the four dental quadrants: dentigerous cysts?

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Dear Editor,

We have read with interest the article entitled "Bilateral dentigerous cysts that involve all four dental quadrants: a case report and literature review" recently published by Jeon et al.[1] in the *Journal of the Korean Association of Oral and Maxillofacial Surgeons* (April 2016). The report described an interesting case of multiple radiolucencies that simultaneously affected the four unerupted third molars. According to the authors, dentigerous cysts were the diagnosis of all radiolucent lesions around the four third molars.

We would like make some suggestions regarding the diagnosis of the current case. The histopathological figure presented by the authors illustrates a well-documented case of odontogenic keratocyst (OKC). The cystic cavity is lined by a regular parakeratinized stratified squamous epithelium, presenting a corrugated parakeratin surface and prominent basal cells disposed in a palisaded fashion[2,3]. Moreover, detachment between the epithelium and the fibrous capsule was also observed. In contrast to the authors' analysis of the image, there are not inflammatory cells in the fibrous capsule, which appears thin mainly when the lower right corner can be observed. Dentigerous cysts exhibit a non-keratinized epithelium containing 2 to 4 cell layers of flat or cuboid cells[3]. Another important point that reinforces our observation is the content of the lesions, which was described by the authors as gray-yellowish necrotic material. Necrotic material is not observed in an intact cystic lesion, such as a dentigerous cyst. This material was probably keratin, which is not produced in dentigerous cysts[3].

Although the diagnosis is established solely after histopathological analysis, some imaging features presented in this case are more likely to indicate OKC. Radiolucencies distal to the third molar in the ascending ramus are highly suggestive of OKC. Additionally, OKC may be associated with the crown of an unerupted tooth in up to 40% of cases[3]. On the other hand, multiple dentigerous cysts affecting the four dental quadrants in a non-syndromic patient are excessively rare[4].

Most importantly are the eventual consequences for the patient. Thus, we respectfully suggest that the authors provide a histological review of the other three radiolucent lesions. OKCs exhibit a high rate of recurrence and the presence of multiple OKCs strongly suggests a diagnosis of nevoid basal cell carcinoma syndrome. Consequently, the patient is more susceptible to present additional OKCs along with multiple basal cell carcinomas in the skin, congenital skeletal defects, plantar and palmar pits, ectopic calcifications, and facial features with frontal bossing and ocular hypertelorism[3]. In a similar case, the panoramic radiography raised additional questions after 10 years of treatment. Four right maxillary teeth appeared after endodontic treatment and an apicectomy associated with a radiolucent lesion. In these types of patients who apparently present a higher risk of subsequent OKCs, all histological details should be described.

Finally, we congratulate the authors and thank them for the opportunity to read and discuss this interesting case. However, in our opinion, the additional questions raised should be further addressed and clarified.

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Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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