Giant sialolith mimicking an impacted tooth

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DESCRIPTION

A 37 year-old male patient was referred by private dental practitioner to oral surgery clinic for surgical removal of an impacted mandibular tooth, which was believed to be the cause of pain at the right side of the lower jaw and radiating to the right submandibular area. Pain was acute and intermittent in nature and aggravated on chewing and during eating. Diffuse swelling was seen over right submandibular region with no local rise in temperature. Further clinical palpation for evaluation of swelling was not possible due to complaint of pain by patient. Intraoral examination showed reduced mouth opening with interincisal distance of 15 mm. Diffuse swelling was seen over right floor of the mouth. Orthopantomogram of patient showed both jaws with normal component of teeth. Horizontally impacted mandibular third molars were seen. A linear radiopacity was noted extending coronally between tooth number 44 and 45, and extending apically below the roots of 46, resembling an impacted supernumerary tooth (figure 1). To investigate further, ultrasonography (USG) was advised to study the soft tissue swelling over right submandibular region. A 20 mm linear echogenic focus with acoustic shadow was seen in the right submandibular duct. The right submandibular gland appeared swollen with hypoechogenic echotexture (figure 2). Diagnosis of giant sialolith was made based on the findings of USG. Surgical removal of the sialolith was planned and executed under general anaesthesia. An intraoral incision was placed over the mucosa of floor of mouth on right side. Attention was given to identify and avoid the opening of submandibular duct opening at floor of mouth on either side of lingual frenum. Blunt dissection was done, and the Wharton's duct with sialolith was identified. A stay suture was passed around the duct posterior to sialolith to prevent its slippage deeper into the duct. An incision was placed over the duct and the sialolith was removed. The duct wall was approximated and allowed to heal primarily. The mucosal incision was closed with resorbable 3–0 polyglactin interrupted sutures. On postoperative follow-up, the patient had uneventful healing and the symptoms of pain and swelling resolved.

Learning points

- Sialoliths, which measure >15 mm are rare, and are termed as giant sialoliths.[1 2] In the present case, appearance of giant sialolith on orthopantomogram, resembling impacted supernumerary tooth lead to misdiagnosis.
- Such presentation is rare.[3] Following features should be used to differentiate sialolith from an impacted tooth on orthopantomogram; lack of sclerotic margins of lamina dura, absence of radiolucent central pulp chamber and differential radiolucency between enamel and dentin.
- Ultrasonography (USG) is an important diagnostic aid in medicine for detecting pathologies of abdomen, kidney, liver and breast. It is can be used to diagnose various oral lesions, including lesions of salivary gland, vascular malformations, orofacial abscess and cysts/tumours of jaw. It safe, quick, non-invasive and relatively inexpensive, with high sensitivity and specificity in diagnosing oral soft tissue pathology and superficial jaw lesion.[4]
- Diagnosing a common pathology with its usual clinical finding is straightforward.[5] However, rarely a diagnostic finding may be misinterpreted, as the finding of linear radiopacity mimicking an impacted tooth on orthopantomogram in the present case. Use of correct diagnostic aid, like USG, helps in arriving at correct diagnosis, thus avoiding wrong treatment.

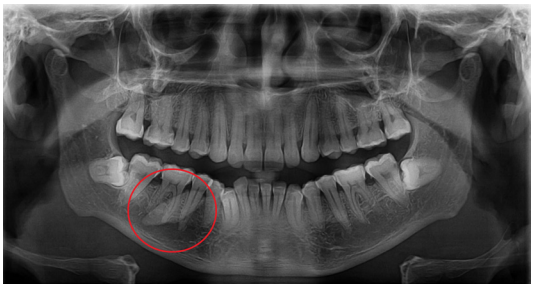

Figure 1 Orthopantomogram showing a linear radiopacity overlapping the lower right second premolar and first molar.

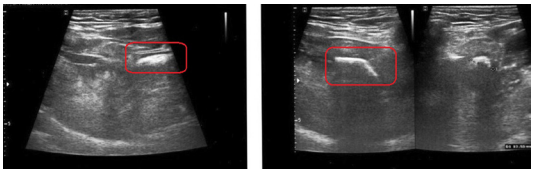

Figure 2 Ultrasonography of the submandibular region showing sialolith.

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