Unusual presentation of more common disease/injury

The story of the missing canine

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Summary

Odontomas are usually associated with permanent teeth and rarely with primary dentition. The consequences of their presence are several clinical complications. Presented here is a case where diagnosis and management of an odontome causing impaction of primary tooth is discussed thus emphasising need for alertness in a clinician using the aid of radiological examination for early detection and subsequent intervention.

BACKGROUND

Odontomas mostly occur in the permanent dentition and are rarely associated with the primary teeth^{1–3}. We have found only six reports of odontomas associated with primary molars in the English literatures.^{4–9}

Early diagnosis and management of odontomas in the primary dentition is essential to prevent later complications, such as failure of eruption of primary and permanent teeth and potential space loss.

Of considerable benefit to the patient in this case was early age of detection which allowed interceptive treatment to be done before there were any severe effects on the developing occlusion.

CASE PRESENTATION

A 5-year-old female patient reported to the out patient clinic at the Department of Pedodontics and Preventive Dentistry with the chief complaint of unerupted tooth in the upper jaw.

The family and medical histories were unremarkable. No history of trauma to the face or mouth was reported. Extra oral examination was non-contributory.

Intra oral examination revealed all primary teeth present (which were caries-free) except the right maxillary primary canine (53). An intra oral swelling 1 cm×1 cm was seen in the buccal aspect of the alveolar ridge in the region of unerupted 53 (figure 1). Mild inflammation was seen

Figure 1 Arrow showing swelling on alveolar ridge in region of 53.

on the alveolar ridge in this region due to impingement by the cusp tip of 83. All other soft tissues were normal. Occlusion was flush terminal plane.

INVESTIGATIONS

Panoramic radiograph (figure 2) and maxillary occlusal view (figure 3) revealed a well defined unilocular radiopacity in

the path of eruption of 53 along with a rotated 12. In the latter the blue arrow indicates the odontoma and red arrow indicates deciduous canine.

DIFFERENTIAL DIAGNOSIS

Differential diagnosis of impacted tooth, dentigenous cyst and odontogenic tumour were considered.

Figure 2 Unilocular radiolucency – odontome.

Figure 3 Occlusal view – blue arrow indicates the odontome. Red arrow indicates primary canine.

Figure 4 Figure shows 6 months post operatively, bulge of erupting primary canine.

Figure 5 IOPA radiograph of 6 months postoperative showing descended position of 53.

TREATMENT

A buccal mucoperiosteal flap was raised under local anaesthesia extending from the distal of right maxillary lateral to mesial of first primary molar. A small window was made in the alveolar bone revealing a small calcified mass in a fibrous capsule. This mass was excised completely and submitted for histopathologic evaluation.

Removal or orthodontic extrusion of 53 were not considered, so as to prevent damage to the crowns of mesio labially rotated 12 and primary first molar 54 and hence no intervention was performed. The patient was kept under observation.

OUTCOME AND FOLLOW-UP

Healing was uneventful. Histopathology examination confirmed the provisional diagnosis of compound odontome.

Six months after the removal of the odontome, a bulge was palpable in the region of 53 (figure 4). Follow-up radiographs at 6 months (figure 5) and 9 months (figure 6) revealed a descended position of the primary canine suggestive of its impending eruption.

At 1 year follow-up the canine had erupted into the oral cavity (figure 7).

DISCUSSION

A tooth that fails to erupt into a normal functional position by the time it normally should is considered impacted.¹⁰ Impaction of primary teeth is uncommon and the impaction of primary cuspid is rare.¹¹

The causes of impaction of primary incisors reported were malformed teeth, dense scar tissue covering the crown, compound odontomas and ankylosis. Odontomes associated with primary teeth are rare.¹¹

Figure 6 IOPA radiograph of 9 months postoperative showing descended position of 53.

Figure 7 Clinical picture, arrow indicating erupted cusp tip of primary canine.

The most common clinical presentation for an odontoma is the association with impacted or retained primary teeth.¹² It is important to consider the presence of an odontoma as a possible cause of swelling and spacing giving rise to arch asymmetry in the primary dentition.¹³

Early diagnosis and management of odontomas in the primary dentition are essential to prevent later complications, such as failure of eruption of primary and permanent teeth and potential space loss.¹³

Of considerable benefit to the patients was early age of detection which allowed interceptive treatment to be done before there were any severe effects on the developing occlusion.¹²

Surgical excision of odontoma and its surrounding soft tissue is recommended as the treatment of choice because of the possibility of its cystic degeneration. The lack of recurrence indicates that conservative excision is adequate.¹⁴

Learning points

- ▶ This case demonstrated the unusual occurrence of developmental anomalies like odontome associated solely with primary dentition and causing impaction of primary canine.
- ▶ Radiological aids are a necessity rather than adjunct when unerupted teeth are encountered.
- ▶ Harmful effects to the developing dentition can be prevented by early intervention and adequate follow-up allowing natural eruption of tooth.

Competing interests None.

Patient consent Obtained.

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