An unusual case with a missing parotid gland: A case report

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Abstract

Unilateral or bilateral agenesis of the parotid gland is an uncommon condition with unclear aetiology. Only 22 cases of unilateral salivary agenesis have been reported excluding the present case. We present a case of a 4-year-old female child who presented with complaints of slight discoloration of her tongue and was referred for MRI to rule out any vascular malformation. Imaging revealed a complete absence of the right parotid gland. Hypertrophy of the sublingual gland and hypoplasia of the parotid gland on the opposite side was also noted, an unusual finding as the contralateral parotid showed compensatory hypertrophy in the other reported cases.

Key words: Bifid tongue; parotid; salivary agenesis; supernumerary teeth

Case Summary

A 4-year-old girl with complaints of slight discoloration of her tongue was referred for MR imaging to rule out any vascular malformation. The patient was otherwise asymptomatic. On physical examination, the presence of bifid tongue, supernumerary teeth on the alveolar border of the maxilla, a solitary mandibular incisor and a high-arched palate were noted. No other orofacial or digital defects were noted.

Imaging Findings

MRI with contrast enhancement was performed on a 3.0T MRI system. The study revealed a complete absence of the right parotid gland [Figure 1]. The left parotid gland was seen at its normal position but was reduced in size. The presence of bilateral accessory parotid tissue was also noted [Figure 2]. A well-defined soft tissue mass of 15 × 8 mm was seen in the right sublingual region, isointense to salivary gland tissue on all sequences, representing hypertrophied sublingual gland [Figure 3]. Bilateral submandibular glands appeared normal. No vascular abnormalities were noted.

A non-contrast computed tomography (CT) scan was also performed to look at bony orofacial structures and it confirmed the MRI findings of the salivary glands. Associated gray matter heterotopia was seen in the left frontal region. The note was also made of cavum septum pellucidum [Figure 4]. Supernumerary teeth were seen along the alveolar border of the maxilla with a solitary mandibular central incisor [Figure 5].

Diagnosis

Aplasia of unilateral parotid with hypoplasia of contralateral parotid with hypertrophy of unilateral sublingual gland.

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Discussion

Unilateral or bilateral agenesis of the parotid gland is an uncommon condition with unclear aetiology. Bilateral agenesis is relatively more common and is associated with other developmental craniofacial anomalies.[1]

Gruber reported the first case of salivary gland agenesis.[2] As the condition is asymptomatic by itself, the exact incidence is difficult to ascertain. Other major and minor salivary glands being the main source of saliva, parotid gland agenesis does not result in xerostomia.

Only 22 cases of unilateral salivary agenesis have been reported excluding the present case. Teymoortash and Hoch reported a case of unilateral agenesis and analysed 21 available cases from the literature. They noted that the
Agenesis of the parotid gland is an uncommon congenital anomaly usually associated with different craniofacial anomalies. It is essential to evaluate orocraniofacial structures in all individuals with parotid agenesis.

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Conflicts of interest
There are no conflicts of interest.

References