Letter to the Editor

Aplasia is not the cause of missing submandibular gland

A recent article described the management of a recurrent oral ranula over a period of 6 months when a CT scan was performed and showed the ranula with absence of the ipsilateral submandibular gland. This was interpreted to indicate unilateral aplasia of the submandibular gland. However, this is unlikely, and there is another, likely explanation for the absence of the submandibular gland that relates to the treatment of the ranula.

The oral ranula was treated by excision and recurs several times. A ranula is an extravasation mucocele, which was confirmed histologically in the present case, and is resorbed when the source of mucus, namely the sublingual gland, is removed.2–4 Excision of oral ranula alone has been found in a literature review to have been unsuccessful in 50% of cases excluding postnatal ranula, and moreover, treatment by excision of the ranula subjects the patient to unnecessary surgery.2 The ranula in the present case was eventually treated successfully by excision of the sublingual gland.1

In a previously investigated case of recurrent oral ranula, the disappearance of the ipsilateral submandibular gland was seen to occur over a period of 5 months following excision of the ranula and associated sublingual gland with damage to Wharton’s duct.5 The leaking Wharton’s duct became sealed by postoperative fibrosis, which caused complete obstruction of the submandibular gland, which has much less resistance to complete obstruction than the sublingual gland and atrophies.6–8 This is clearly what happened in the present case during the 6 months between initial surgery and the CT scan. The ranula in the present case was found at final surgery to communicate with a blindly ending duct, which was the Wharton’s duct that had been completely obstructed by postoperative fibrosis.

A similar misinterpretation of a vanished submandibular gland occurred in two cases in which a sialolith had caused complete obstruction and atrophy of the submandibular gland.6

Unfortunately there is no shortage of misinformation in the recent article, such as: the statements about the rate of recurrence of oral ranulas with reference to Zhao et al. are incorrect because Zhao et al. considered oral, plunging and mixed ranulas together and did not differentiate oral ranulas;7,8 the statement that the rate of recurrence of oral ranula treated by complete excision of the ranula is up to 25% is not referenced, is incorrect, and appears to be no more than imaginary; the statement that oral ranula is a retention cyst arising as a result of ductal obstruction of the sublingual gland is incorrect because oral ranula is an extravasation cyst arising from damage to a duct of the sublingual gland or rarely from obstruction of the sublingual gland that leads to rupture of acini.2,3,9,10

In conclusion, when faced with a missing submandibular gland, seek a cause for obstruction and complete atrophy, which cause the submandibular gland to vanish.

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References

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