

Quiz

Hole on the palate, saliva in the nose: What is your diagnosis?

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Case Summary

A 69-year-old lady was diagnosed to have mucoepidermoid carcinoma of hard palate 3 years ago. She completed 20 cycles of external beam radiotherapy and 5 cycles of mould brachytherapy and remained asymptomatic until she again presented to us with the recurrence of a painless mass at the hard palate. The hard mass appeared as an ulcerated dimple measuring 2 x 1 cm located at the junction of the hard and soft palate, more towards the right. Excision biopsy of the mass was done with a 1cm circumferential margin deep to the periosteum, with the resulting exposed bony defect covered with a rotational flap from the soft palate. During follow-up, the patient complained that the saliva came up into the nose whenever she swallowed. Oral examination (Figure 1) and flexible nasopharyngolaryngoscopy (FNPLS) (Figure 2) were performed. What is your diagnosis?



Fig. 1 A 3 mm defect at the junction of hard and soft palate.



Fig. 2 The defect is seen on the floor of right nasal cavity using FNPLS, which may be missed with 0 degree nasoendoscope.



Fig. 3 The defect is pronounced when the patient swallows (note the regurgitation of saliva through the fistula)

(Answer and discussion on the next page)

Answer: Oronasal fistula

The presence of 3 mm diameter hole was noted on the hard palate. She was having an oronasal fistula (ONF) on the right side of the soft palate resulting in regurgitation of saliva into the right nasal cavity, which was observed during FNPLS (Figure 3). An obturator was placed to seal off the fistula and thus preventing the nasal regurgitation. Histopathological examination of the excised hard palate mass showed the presence of mucoepidermoid carcinoma (MEC) with deep margin involvement.

Discussion

ONF is common after palate surgery. In fact it is the commonest complication associated with cleft palate surgery, most of the time due to repair under tension besides post-operative surgical site infection. Inadvertent use of diathermy during palatal work can cause flap loss, though uncommon (Sadhu, 2009). In our case, the ONF may be attributed to the previous radiotherapy effect (both external beam and mould) which may lead to vascular compromise in the subsequent biopsy repair work.

A patient with ONF may present with symptoms reflecting the continuity of both oral and nasal cavities. It can be in the form of deglutition-related or speech-related problems. Depend on the size, the regurgitated food particle may enter the nasal cavity and cause subsequent intranasal infection. In our case, the size is classified as medium that just cause symptomatic fistula on swallowing saliva or fluid, but not large enough to allow food particle or causing hypernasality during speech. In general the ONF can be categorized into 3 types: small

(<2mm), medium (3-5mm) and large (>5mm) (Muzaffar *et al.*, 2001). Another description of ONF is according to site, and the commonest being the junction between soft and hard palate.

As the patient was having a recurrence of the MEC, on top of failure of the previous surgery to close the gap most probably due to compromised vascularity of the palate post radiotherapy, she was opted for non-surgical ONF closure. A prosthetic treatment (obturator) was reconstructed by the prosthodontist to close the oronasal defect so that there will be no more leak of oral cavity content into the nose.

Using this removal obturator, it will facilitate in review of the palate for any recurrence of MEC. According to patients with tumor, it is accepted that a dental prosthesis is generally preferable to reconstructive surgery because the former provides easier inspection of the residual tissue after surgery. Moreover, recurrent disease can be identified at an early stage (Beumer *et al.*, 1996).

References

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