Egyptian Journal of Anaesthesia (2016) xxx, xxx–xxx

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Egyptian Society of Anesthesiologists

Egyptian Journal of Anaesthesia

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Case report

Anaesthetic management in a case of large plunging ranula with difficult airway: A case report

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Received 24 April 2016; accepted 13 September 2016

KEYWORDS

Plunging ranula;
Awake fibre optic intubation;
Blind nasal intubation

Abstract Plunging ranula is a mucous retention cyst found on the floor of mouth which arises from the submandibular and sublingual salivary glands extending to lateral aspect of neck, which may often cause potential airway obstruction leading to difficulty in airway management. A forty year old female patient was admitted to our hospital with large, painless swelling in the floor of mouth extending to the lateral part of body of mandible and neck. This intraoral swelling distorted the normal airway anatomy thus making airway management difficult as the patient was planned for excision of swelling under general anaesthesia. So we present a case of successful management of a difficult airway by using awake fibre optic intubation in a patient posted for excision of a large plunging ranula under general anaesthesia.

1. Introduction

A plunging ranula is a salivary gland cyst which develops when the mucous extravasation extends through or around the mylohyoid muscle deep into the neck and presents with neck lump along with or without swelling over floor of mouth. The intraoral swelling may lead to difficult airway due to potential airway obstruction and thus challenging for an anaesthesiologist [1,2,4,8]. Various strategies have been described for difficult airway management in such a case but proper plan and selection of an appropriate technique are mandatory to avoid catastrophic situations during anaesthesia [4]. So we report a case of difficult airway management in a patient having large plunging ranula posted for excision under general anaesthesia.

2. Case history

A forty year old female patient weighing 56 kg was admitted to our hospital with a painless, large swelling of approx. 10 cm × 8 cm size in the floor of mouth. The swelling was progressively increased in size since last five years and extended from floor of mouth to the submental and submandibular region occupying the upper lateral part of body of mandible and neck [Fig. 1]. She had complained of difficulty in deglutition, discomfort while eating and sleeping since one year. The intraoral part of swelling was extending towards the right side pushing the tongue upwards and left side thus obliterated the view of uvula and soft palate (Mallampati grade 4) [Fig. 2].

The lateral X-ray neck showed the soft tissue shadow in upper part of neck with no tracheal compression and deviation

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Peer review under responsibility of Egyptian Society of Anesthesiologists.

http://dx.doi.org/10.1016/j.egja.2016.09.002

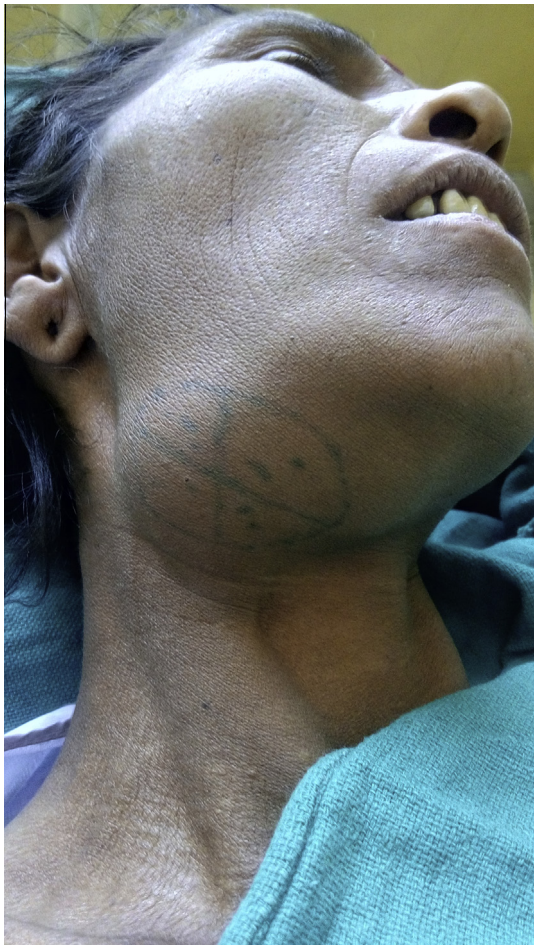

Figure 1 External (lateral) view of ranula.

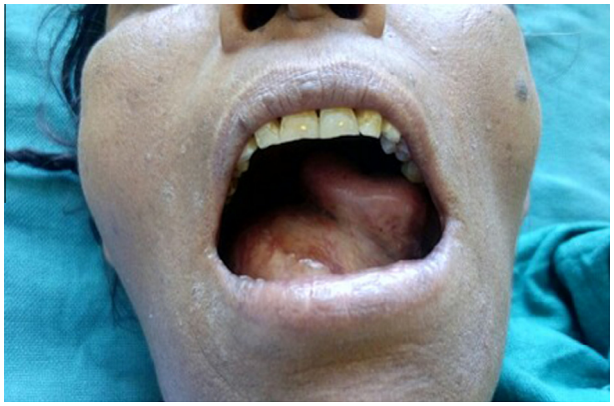

Figure 2 Internal view of ranula showing tongue pushed upwards and left side.

[Fig. 3]. The ultrasonography of right submandibular region of neck reported predominantly hyperechoic lesion with few hypoechoic area within it showing multiple punctuate calcified foci suggestive of benign retention cyst. The CECT neck is also suggestive of retention cyst of submandibular gland [Fig. 4]. The preanaesthetic evaluation was done thoroughly. On airway examination, mouth opening was adequate with normal thyromental distance but Mallampati grade was 4 due to intraoral swelling. Indirect laryngoscopy showed partially visible glottis. All routine investigations were within normal limits.

The excision of ranula was planned under general anaesthesia. Awake fibre optic intubation was chosen as initial plan of airway management with tracheostomy plan standby along with difficult airway cart kept ready. The patency of both nos-

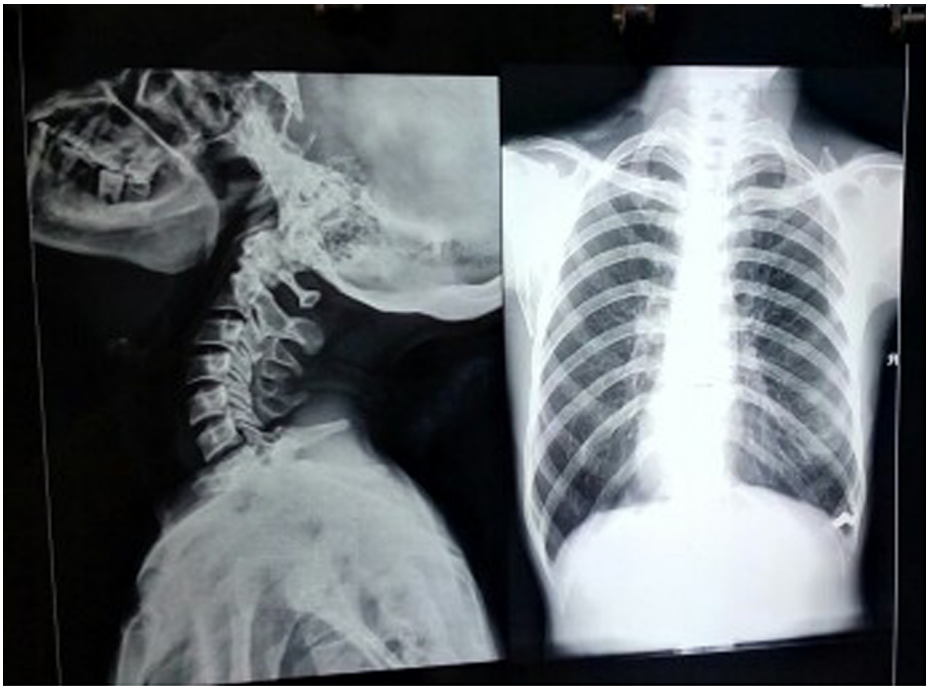

Figure 3 X-ray lateral view of neck and chest PA view.

Please cite this article in press as: Sethi SK et al. Anaesthetic management in a case of large plunging ranula with difficult airway: A case report, Egypt J Anaesth (2016), http://dx.doi.org/10.1016/j.egja.2016.09.002