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An unusual case of difficult mask ventilation

The incidence of difficult mask ventilation ranges from 1.4% - 2.2%.^{1,2} One of the common reasons for difficult mask ventilation is an ill-fitting mask due to sagging cheek and shrinking of corners of mouth in edentulous patient.³ Here we report the successful management of a case of mask leak due to a large defect in right cheek using patients own body part.

A 56-year-old lady belonging to American society of anesthesiologists (ASA) physical status I⁴ with a large muscular defect over right cheek was posted for flap revision surgery. Past history revealed that the patient has undergone composite resection with placement of pectoralis major myocutaneous flap for carcinoma right gingiva-buccal sulcus under general anaesthesia one month back with an uneventful perioperative course. Subsequently the patient developed flap necrosis and referred to our hospital for a flap revision surgery. Current airway evaluation revealed a Mallampati grade I airway⁵ with a large muscular defect of 5 × 4 cm size over the right cheek.

Anaesthesia was induced slowly with incremental sevoflurane and aliquot doses of propofol. Guedels (size 2) airway was inserted to prevent the tongue fall and easier mask ventilation. However, we encountered a difficulty in giving a snug, leak proof and comfortable mask fit for adequate positive pressure ventilation after induction of anaesthesia. We presumed that difficulty in positive pressure ventilation (PPV) is because of the gaping defect over right cheek. We could

have tried placing few gauze pads over buccal areas but that would have meant introducing an unsecured object into the patient airway. So in an attempt to close the defect, we pulled out the tongue from the defect with Magill forceps and approximated accordingly over the wound defect (Figure 1) to prevent air leak from the muscular defect. With this the air leak was reduced to bare minimal and we could induce the patient to a deeper plane of anaesthesia and mask ventilation was checked and the patient's trachea was successfully intubated. The rest of the anaesthetic course was uneventful and patient was successfully extubated two hours after surgery.



Figure 1: Method of mask ventilation. Arrow points to the tongue

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