

Mallampati class 'zero' - yet another cause?

Sir,

I present a 40-year-old female patient with severe kyphoscoliosis involving cervical, thoracic and lumbar spine, bilateral staghorn renal calculi and renal failure scheduled for percutaneous nephrolithotripsy. The patient has given consent to report this. On examination, she had Mallampati class zero airway and a visible epiglottis on mouth opening. In view of cervical spine involvement, a lateral radiographic view of the neck was done to rule out any airway difficulty (Figure 1). It showed that the epiglottis was at C2 level with distortion of airway. On induction of anaesthesia, there was no difficulty in mask ventilation. Initial attempt at intubation by the trainee resident resulted in oesophageal intubation as he went past the glottic opening and experienced difficulty in glottic visualization. After the reason for difficulty was recognized, subsequent attempt at intubation by attending anesthesiologist taking appropriate measures was successful and was graded as easy. Grover *et al.*^[1] reported a similar encounter of difficult laryngoscopy in a class zero airway due to a large obstructive epiglottis. Grade 1 position of the larynx can cause difficulty in intubation despite



Figure 1: X-Ray neck lateral view showing the epiglottis at C2 level with distortion of airway

normal epiglottis if the laryngoscopist does not use an appropriate technique. In a prospective study by Ezri *et al.*,^[2] all patients with Mallampati class zero were women and had laryngoscopic grade 1. The difference in neck fat deposition between the sexes was suggested as an explanation for the perceived easier class of airway in women. Difficulty in not only intubation but also mask ventilation due to large floppy epiglottis in class zero patient was reported by Fang and Norris.^[3] The possible cause for Mallampati class zero in my patient was distortion of airway. Severe kyphoscoliosis may have caused alteration in the alignment of the pharyngeal and laryngeal axes. This may have contributed to elevation of laryngeal inlet resulting in class zero view. This case highlights the other causes for mallampati class 0 airway, in addition to earlier reports of large redundant epiglottis and female gender. It is important to recognize the possibility of difficult laryngoscopy despite an easily visible epiglottis. The increased force during laryngoscopy in the event of difficulty in visualizing the glottis has potential for causing neurological injury, especially in patients with cervical spine abnormality.

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