

## Hopkins rod endoscope, the saviour for securing airway in tonsillar lymphoma: A case report

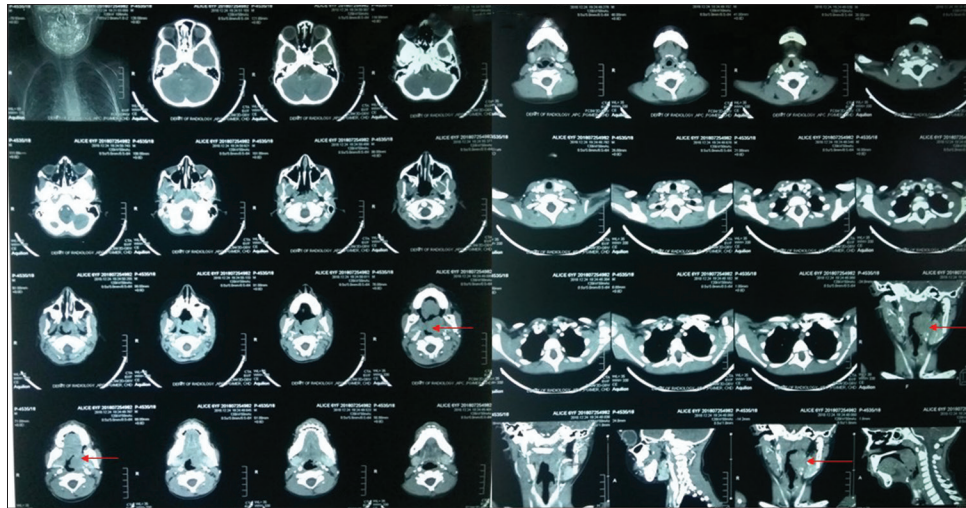
Sir,

Extra-nodal non-Hodgkin lymphoma (NHL) usually involves the palatine tonsils. The clinical manifestations are enlargement and alteration in the appearance of tonsils, cervical lymphadenopathy, dysphagia, snoring, recurrent upper respiratory tract infection, fever, weight loss and lingual lobe enlargement, which may even lead to stridor.<sup>[1,2]</sup> We present a case of tonsillar lymphoma where successful airway management with 0° Hopkins rod averted impending tracheostomy.

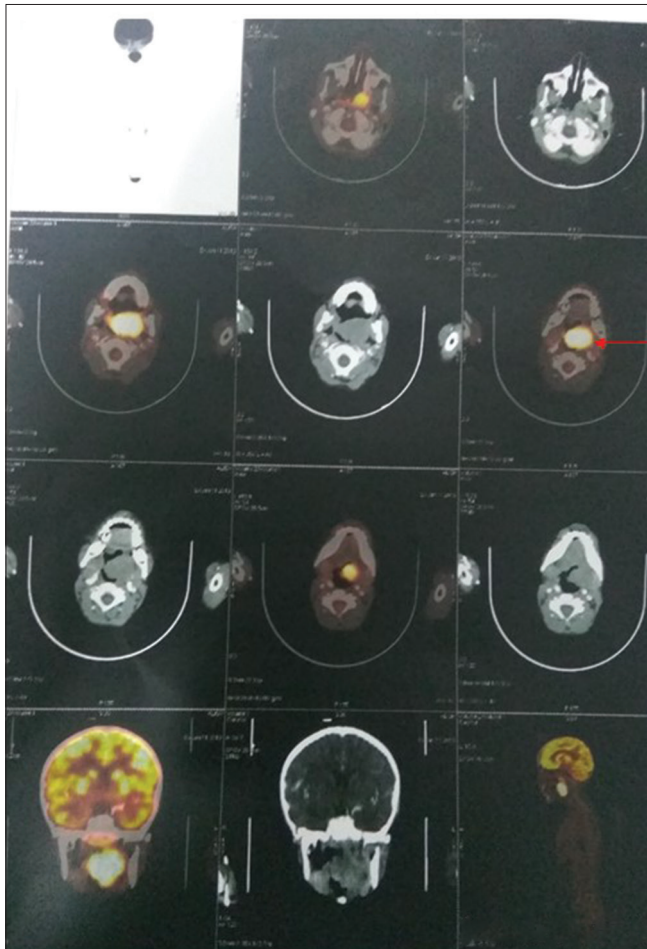
A 14-kg, 5-year-old boy presented with low-grade fever and swelling in the oral cavity. The swelling was an enlarged left tonsil (13.6 × 3.4 × 3.7 cm) found to be extending superiorly from hard palate to left vallecula inferiorly, crossing the midline and abutting the left half of epiglottis and the right tonsil [Online Figure 1]. On positron emission tomography - computed tomography (PET-CT), intense fluorodeoxyglucose (FDG) uptake was noted in the enlarged left tonsil [Online Figure 2]. The fine needle aspiration cytology (FNAC) from the tonsillar mass revealed a high-grade NHL. During the course of his stay in the hospital, the child developed stridor and emergency tonsillectomy was planned. On airway examination, Brodsky grade 4 tonsillar swelling and grade 4 modified Mallampati score were noted [Figure 1]. Other airway parameters were non-remarkable with no trismus. The preoperative investigations and vital signs were within normal limits. In the operating room, noninvasive monitoring

of blood pressure, electrocardiogram (lead II and V5) and oxygen saturation (SpO<sub>2</sub>) were applied. A 22-G intravenous (IV) cannula was secured, and IV glycopyrrolate 100 µg and dexamethasone 3 mg were administered. Anaesthesia was induced with IV fentanyl 30 µg and propofol 30 mg. About 2% sevoflurane was started thereafter. After successful bag and mask ventilation, succinylcholine 30 mg was given and video laryngoscopy was performed. The mass on the base of the tongue was found to be pushing the epiglottis posteriorly [Figure 2], and consequently, the first intubation attempt failed. Due to bleeding from the friable tissue during the process, trial by laryngeal mask airway followed by fibre-optic endoscope was ruled out. The child, however, could be successfully ventilated by bag and mask ventilation. It was then decided to use a 0° Hopkins rod endoscope so as to judge the airway anatomy which could help in securing the endotracheal tube into such a compromised airway channel. The distorted anatomy was identified after thorough suctioning and trachea was intubated by using Macintosh 2 blade and 0° Hopkins rod [Online Figure 3]. The otolaryngologist provided the view and anaesthesiologist introduced the endotracheal tube (ETT). Anaesthesia was maintained with atracurium, sevoflurane and nitrous oxide in oxygen. Coblation tonsillectomy was carried out uneventfully. Subsequently ensuring adequate haemostasis, the trachea was extubated after reversing the residual neuromuscular blockade with 1.5 mg neostigmine and 0.3 mg glycopyrrolate.

The incidence of extra-nodal NHL involving the Waldeyer's ring (WR) is around 5%. The WR consists of pharyngeal (adenoids), tubal, palatine and lingual tonsils, and about 40–50% WR lymphomas arise from the palatine tonsil.<sup>[3]</sup>



**Online Figure 1:** CT scan of neck, red arrow indicating massive left-sided tonsillar enlargement



**Online Figure 2:** PET-CT, red arrow showing intense FDG uptake in left tonsil



**Online Figure 3:** Simultaneous use of Macintosh 2 blade and 0° Hopkins rod

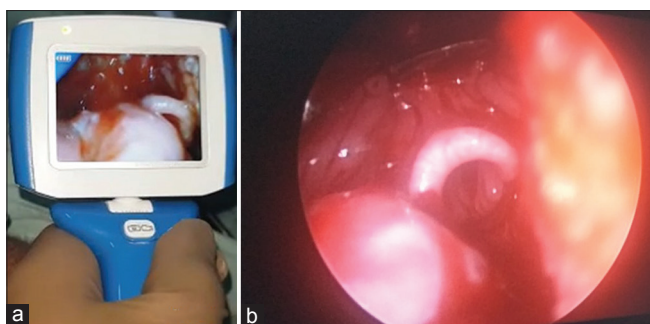


**Figure 1:** Airway examination

Tonsillectomy involves a shared airway and airway management in a patient with kissing tonsils is a challenging task for the anaesthesiologist due to increased risk of bleeding during laryngoscopy. The lingual tonsil is fragile as it is devoid of the capsule,

in comparison to encapsulated palatine tonsil, which may be a potential source of bleeding.<sup>[4,5]</sup>

Hopkins rod telescope is generally used in micro laryngoscopy and bronchoscopy for better optics.



**Figure 2:** (a) Laryngeal inlet in video laryngoscopy and (b) view of laryngeal inlet in 0° Hopkins rod endoscope

A small Hopkins rod bronchoscope may be used to railroad an ETT in difficult airway management, particularly in upper airway pathology as supraglottic cysts or pathology involving the tongue base.<sup>[6]</sup>

In view of emergency management of a compromised airway, we have used Hopkins rod as an alternative of fiberoptic bronchoscope for rapid manoeuvrability and better optics.

#### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

#### Conflicts of interest

There are no conflicts of interest.

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