


LETTER TO THE EDITOR

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# A giant scalp tumor on the occiput: a challenge in positioning and airway management



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To the Editor,

Airway management in patients with craniofacial tumors offers considerable challenges.

Thirty-five years old, ASA 1 male, weighing 60 kg, had developed a tumor in the occipital region. It recurred after excision, rapidly increasing almost to the size of his head (Fig. 1). The tumor caused pain and bled on touch. He kept his head in flexion in a particular position to avoid pain and could lie down in lateral position only. The inability to lie down supine and extreme flexion could obscure the line of sight during direct laryngoscopy and did not allow proper positioning for awake intubation although his mouth opening was > 4 cm, Mallampati class 2, and hyomental distance was > 6 cm. The options were either intubation under direct laryngoscopy in lateral position or to exercise awake fiberoptic laryngoscope guided intubation. We opted for the latter. But in order to make the patient lie down supine and to prevent head flexion, something is needed to be done.

In the operation theater, all the standard monitors were attached. We took 10 ml of 0.25% bupivacaine plain, and bilateral great auricular, lesser occipital, and greater occipital nerves were blocked. In about 10 min, the patient became pain free, and now he could straighten his neck and laid down supine. We had already given the patient injection glycopyrrolate 0.2 mg intravenously, just before administering the blocks and nebulized with 4 ml of 4% lignocaine. Puffs of 10% lignocaine were given orally. Bilateral superior laryngeal and transtracheal blocks were done. The patient lied down on two pillows: one put on the other, below the portion of the occiput which was free of tumor and the nape of the neck, and one pillow at the back such that the tumor



**Fig. 1** Patient with giant occipital tumor almost equal to the size of his head

was hanging from the edge of the table. Intubation using fiberoptic bronchoscope was done. We had also prepared for emergency tracheostomy in case the intubation trial failed (plan B), and an ENT surgeon was called. After that, injections propofol 100 mg, vecuronium 5 mg, and fentanyl 100 microgram were given. Anesthesia was maintained on oxygen, air, and isoflurane (0.6–2%).

During surgery, there was about 1.5 L blood loss which was replaced, and the patient was hemodynamically

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stable. When the patient was fully awake, the trachea was extubated. Further course was uneventful. Histology report revealed it to be malignant spindle cell neoplasm.

Airway management in general as well as for head and neck surgery has undergone remarkable development and sophistication, but it still demands special focus. Detailed knowledge of tumor types, location, size, vascularity, and workup may relate directly to airway management (Caplan et al. 1990). In the case of recognized difficult airway, the most appropriate technique is awake intubation. However, for such procedures to take place, proper positioning of the patient also plays a great role. In the above-mentioned case, the patient could not lie supine as the tumor in the occipital region caused intense pain on slightest touch. The scalp block in the posterior part of the skull relieved the pain and helped in proper positioning of the patient. Thus, the regional block plays a great role in such difficult situation and should be used wherever required. Rashmi Singh et al. in a patient of giant occipital meningocele with craniovertebral anomalies positioned their 8-month-old patient laterally during induction and intubation (Singh et al. 2016). Manhas et al. intubated by lifting the child such that one person supported the head and shoulder and a second person lifted the trunk and legs after intubation in the lateral position failed (Manhas et al. 2006).

To conclude, besides the difficult airway cart, proper positioning of the patient is a must. Proper laryngoscopy even in the anticipated difficult airway prevents the need for a surgical airway.

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  4. NK: This author helped in the literature search and manuscript writing.
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#### References

- Caplan RA, Posner KL, Ward RJ, Cheney FW (1990) Adverse respiratory events in anesthesia: a closed claims analysis. *Anesthesiology* 72(5):828–833. <https://doi.org/10.1097/00005542-199005000-00010>
- Manhas Y, Chinnan NK, Singh AK (2006) Neonatal airway management in occipital encephalocele. *Anesth Analg* 103(6):1632. <https://doi.org/10.1213/01.ane.0000247194.66024.d0> PMID: 17122307
- Singh R, Dogra N, Jain P, Choudhary S (2016) Dandy Walker syndrome with giant occipital meningocele with craniovertebral anomalies: challenges faced during anaesthesia. *Ind J Anaesth* 60(1):71–73. <https://doi.org/10.4103/0019-5049.174811>

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