Images in Anesthesiology: Facemask Ventilation with a Frontonasal Encephalocele

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A full-term, 69-day-old infant with an antenatal diagnosis of a frontonasal encephalocele presented for a bifrontal craniotomy and encephalocele resection. The encephalocele measured 4.5 cm by 4.5 cm and extended from the patient’s glabella to his nasal alae. It was soft and covered with intact skin. The remainder of his airway examination (including computed tomography) was unremarkable.

The location of the encephalocele precluded routine facemask ventilation. Seventy-five percent of encephaloceles arise from the occiput and may be associated with challenging direct laryngoscopy, whereas frontonasal and frontoethmoidal encephaloceles may be difficult to mask ventilate in up to 19% of patients.1–3 We knew that the unique nasal structures encountered in veterinary medicine necessitate an anesthetic mask that encompasses a majority of the animal’s face. Therefore, we placed an adult mask (size 5) over the awake patient’s entire face, incorporating the encephalocele (fig.). With minimal irritation to the nonsedated infant, we were able to assist with and assume ventilation. The facemask was rotated 180 degree in an attempt to mirror the contour of the skull and seal along the frontal bone, zygomatic bones, and mandible. No direct pressure was applied to the globes. Inhalational induction and subsequent direct laryngoscopy were uneventful.

Competing Interests
The authors declare no competing interests.

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References