Impending Airway Compromise due to Cystic Hygroma

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We report on a 3-month-old infant, who arrived in the pediatric emergency department (ED) with a cervical cystic hygroma causing an impending compromise of the airway. We recognize that such a lesion can rapidly progress, and the judicious use of imaging in the ED may help to avoid airway compromise and possibly fatal complications. [West J Emerg Med. 2011;12(4):368–369.]

A 3-month-old boy, who was diagnosed after birth as having a cystic hygroma, was referred to the emergency department (ED) for further evaluation. The baby had no signs of respiratory distress, but a large lesion was noticed on the right neck, emerging from the base of the tongue and threatening the airway patency (Figure 1). Ultrasound examination revealed a large cystic lesion insinuating around the normal structures of the neck on both sides without compressing the airway (Figure 2). The patient was admitted for further evaluation, and a prophylactic tracheotomy was performed. Unfortunately, the baby died at home 2 months later because of tracheotomy tube–related complications.

Lymphatic malformations are a group of vascular malformations that are usually benign in their behavior. Cystic...
hygroma, the largest and most extensive lymphatic malformation, is diagnosed at birth in 40% of the cases.\textsuperscript{1} Cystic hygromas usually involve the head and neck, and their course is indolent in most cases.\textsuperscript{1,2} However, these lesions may hemorrhage, develop inflammation or infection, or may progressively enlarge, leading to an expanding lesion that may physically compress local organs.\textsuperscript{3} Surgical excision is regarded as the treatment of choice; however, when radical excision is surgically challenging, the patient will be treated with sclerotherapy, an injection of a sclerosing substance such as OK432 into the lesion.\textsuperscript{4,5} Sclerotherapy is problematic in cases of airway compromise because of the additional edema that may develop.\textsuperscript{4,5} Presentation of an emergency airway compromise due to a cervical cystic hygroma is usually uncommon, but the emergency physician must be aware that any child with a large cystic lesion may have a massive infiltrating hygroma with a much greater internal involvement of local organs and tissues surrounding the larynx.\textsuperscript{6–8} Ultrasonography is a readily available technique in the ED, and we recommend using this modality to evaluate the extensiveness of such a lesion.

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REFERENCES

\textbf{Figure 2.} Sonographic longitudinal view of the right neck. A large mass is seen (arrows), insinuating around the normal structures of the neck. The mass is partially anechoic (cystic) and partially shows mixed echogenicity with septae of variable thickness.