

[A-12] Extravasation of a Radiocontrast Injection of Branchial Cyst Causing Airway Compromise

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Introduction: Branchial cleft anomalies account for almost 20% of pediatric congenital head and neck lesions. They lie in vicinity to laryngeal structures and complications during a procedures for branchial clefts can lead to a compromised airway.

Case Presentation: A 10 mo. old male presented for IR guided contrast injection of a probable branchial cleft sinus and diagnostic head/neck MRI. The patient was otherwise healthy. Mask induction of general anesthesia with sevoflurane was uneventful and the trachea was easily intubated with a 3.5mm cuffed endotracheal tube. A leak around the ETT was noted and the cuff was inflated. The patient underwent contrast injection of the sinus tract under fluoroscopy and was then transferred to MRI. Upon completion of the scan, an urgent call came from the radiologist reading the scans. A branchial cleft sinus was noted with extravasated contrast (Fig 1) in the submandibular space, parapharyngeal and prevertebral soft tissues, causing mass effect upon the airway. The airway was stented open with the endotracheal tube (Fig 2). In light of these findings and an unknown time period for contrast reabsorption, the patient was transferred to the PICU intubated. The following day the patient extubated under direct vision by ENT in the OR. He was discharged home after a short hospital stay.

Discussion: Branchial clefts are the result of incomplete obliteration of the pharyngeal clefts and pouches of the branchial apparatus during embryonic development and can present as a mass, abscess, or fistula in the lateral neck. This case presents a near miss that could have resulted in a very different outcome had the radiologist not immediately notified the anesthesiologist of the MRI findings. If the patient had been extubated with an unknown compromised airway, the case could have resulted in a can't ventilate, can't intubate situation and possible death. Even though extravasation of contrast is rare, it concerns anesthesiologists and may lead to a change in practice, including the use of an ETT over an LMA and the routine use of a leak test prior to extubation.

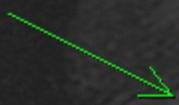
References:

1. Eur Arch Otorhinolaryngol. 2013 Mar;270(4):1501-6
2. Curr Opin Otolaryngol Head Neck Surg. 2012 Dec;20(6):533-9.
3. Semin Pediatr Surg. 2006 May;15(2):64-9.

Se:5
Im:20

[AF]

P.ZAYNE
Study Date:9/27/2013
Study Time:12:48:00 PM
MRN:



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Yes GD

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Se:1
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P.ZAYNE
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Study Time:11:40:15 AM
MRN:



C128
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