



Images in medicine

Chondrodysplasia Punctata and Airway: An Anesthetic Challenge in Pediatrics



Condrodisplasia Punctata y Vía Aérea: Un Reto Anestésico en Edad Pediátrica

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A 10-year-old boy was referred to our tertiary hospital for surgical evaluation of recurrent tonsillitis (3–4 episodes/year over the last three years). He was diagnosed in early infancy with X-linked type 1 chondrodysplasia punctata (ARSE mutation), presenting with dysmorphic facial features (hypertelorism, nasal root depression, flattened nasal bridge), growth delay, and radiographic evidence of tracheal ring calcifications. His mother was a carrier, and a maternal uncle had short stature.

Anesthetic assessment at the referring hospital raised concerns about potential intubation difficulties due to airway calcifications. A previous radiograph (Figure 1A) confirmed tracheal ring calcifications. Flexible laryngoscopy performed during our consultation revealed subglottic calcifications without significant stenosis. Computed tomography (CT) scan with 3D reconstruction (Figure 1B) revealed partial tracheal ring calcifications, corroborated in a coronal CT view (Figure 1C). Tracheal diameter measurements (Figure 1D) demonstrated narrowing at the first tracheal ring (6.6 mm).

The pediatric airway committee recommended surgery using a laryngeal mask or, if intubation was necessary, a smaller-diameter endotracheal tube (4.5–5 mm). This case highlights the importance of thorough preoperative evaluation in patients with airway abnormalities and parental education on appropriate emergency airway management, including the use of smaller endotracheal tubes if necessary.

Authorship

All authors had access to the data and played a role in writing this manuscript.

Author contributions

- Santiago Almanzo and Agustín Alamar-Velázquez managed clinical treatment and procedures, contributing to the initial development of this paper.
- Santiago Almanzo and Javier Más-Sabater performed the writing of the manuscript.
- Miguel Armengot Carceller supervised the work.

Declarations

This article has no funding source.

Oral and written consent was obtained to publish this image.

Ethics

Procedures followed here were in accordance with the ethical standards of the responsible committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 1983. We have not use patients' names, initials, or hospital numbers.

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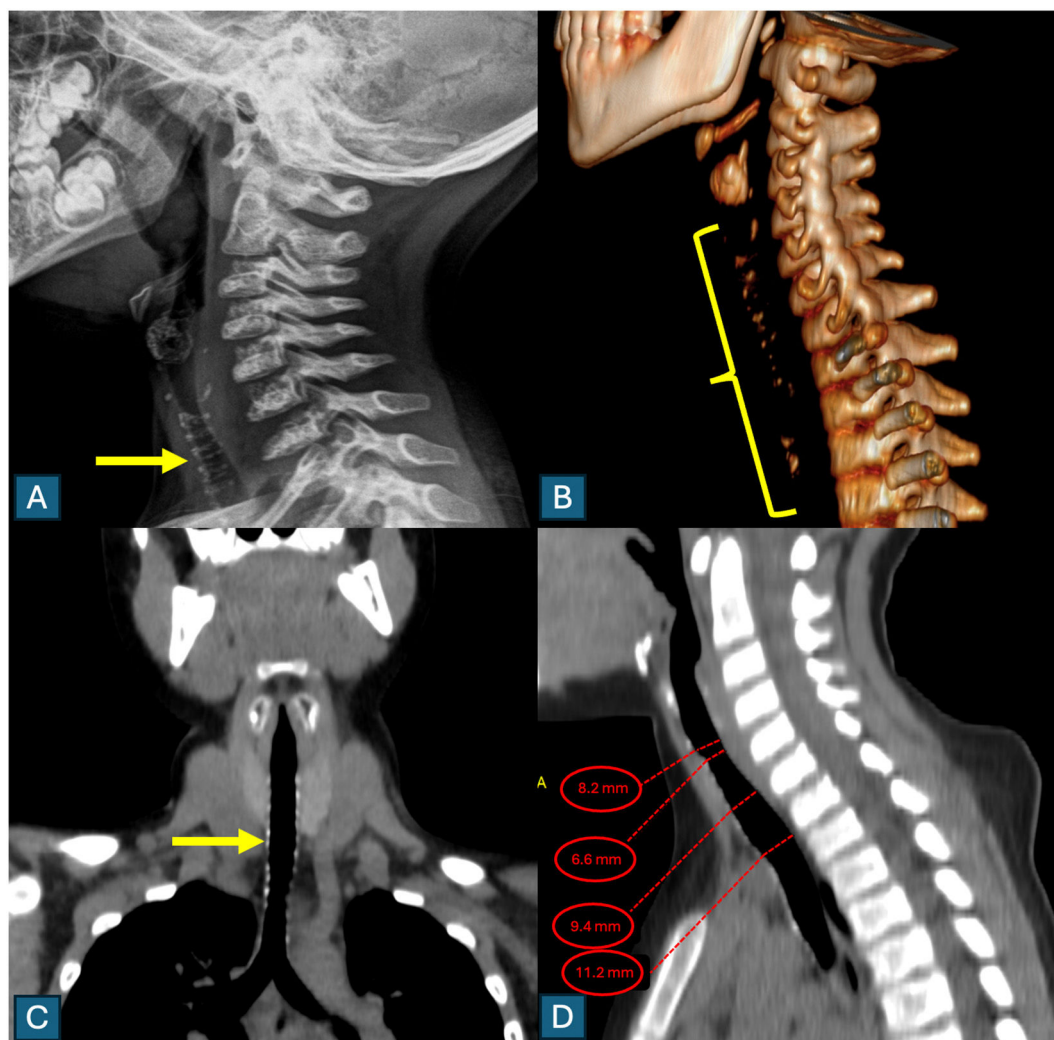


Figure 1. A: Lateral radiograph showing tracheal ring calcifications. B: 3D reconstruction highlighting tracheal calcifications. C: Coronal CT view showing calcifications throughout the trachea. D: Sagittal CT view with measurements of tracheal diameter at various levels, demonstrating the smallest diameter at the first tracheal ring (6.6 mm).

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Declaration of competing interest

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