IMAGES IN OTORHINOLARYNGOLOGY

Type III Laryngeal Cleft in an Infant

Hendidura laríngea tipo III en un lactante

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A 4 month-old, female patient attending the Endoscopy Department for inspiratory stridor, recurrent respiratory infections, episodes of cyanosis with swallowing and poor staturo-ponderal growth. The infant also presented haemivertibrae.

An oesophagogram was performed in which the passage of contrast to the airway was observed (Fig. 1), and a fibrolaryngoscopy which showed redundant interarytenoid mucosa which was herniating inside the laryngeal lumen (hamartoma) (Fig. 2A). Rigid endoscopy under general

Figure 1 Oesophagogram: the passage of contrast to the airway can be observed.


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Figure 2  Direct laryngoscopy. A. Redundant posterior mucosa (hamartoma) which is herniating inside the laryngeal lumen. B. Laryngeal cleft.

Anaesthetic confirmed the presence of the cleft and its extension (Fig. 2 B). It compromised all of the cricoid cartilage (type IIIa cleft, Benjamin-Inglish classification, modified by Monnier).

A nasogastric tube was placed, and tracheotomy performed with anti-reflux treatment. After the infant’s nutritional recovery, the defect was closed endoscopically.

Laryngeal cleft is a very rare disease, which should be considered in the differential diagnosis of stridor and aspiration syndrome in neonates and infants. It represents from 0.5% to 1.5% of congenital laryngeal malformations.

It consists of the incomplete separation between the oesophagus and the airway from the start of the larynx. It is frequently associated with other malformations of the midline. Therapeutic conduct will depend on the extension of the cleft and the associated anomalies. Surgical treatment can be via the endoscopic route (types I, II and III) or open surgery can be performed (types III and IV, and endoscopic repair failures). It is important to establish the airway, prevent chest infections, reduce aspiration and control gastro-oesophageal reflux prior to surgery.