An 8-Month-Old Infant with Persistent Stridor

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An 8-month-old infant presented with persistent stridor since the first month of life that began worsening during meals after he was weaned. A nasopharyngoscopy showed indirect signs of gastroesophageal reflux ("cobblestone appearance"). Antiacid therapy was started but there was no improvement. A bronchoscopy revealed a triangular appearance of the terminal part of the trachea due to a bulging lesion, synchronous to cardiac function.

A computed tomography (Figure 1) scan and an echocardiogram (Figure 2) were performed.

Editor’s note: Each month, this department features a discussion of an unusual diagnosis. A description and images are presented, followed by the diagnosis and an explanation of how the diagnosis was determined. As always, your comments are welcome via email at pedann@Healio.com.
The term “vascular ring” refers to an encirclement of the trachea and the esophagus by an abnormal combination of derivatives of the aortic arch system. They are due to arrest or abnormal migration of the brachial arch during embryogenesis, resulting in abnormalities of the aortic arch or blood vessels originating from it. The symptomatic consequence of the ring is mass effect and obstruction to the encircled trachea and esophagus, with symptoms that vary in degree and in age of presentation.

DISCUSSION

Stridor is a common condition in infancy. It is generally related to obstruction of the large airways secondary to infections (croup, epiglottitis, retropharyngeal abscess), inflammatory diseases (gastroesophageal reflux), or mechanical causes (foreign bodies, compression, laryngomalacia). \(^1\)

Vascular rings represent approximately 1% of cardiovascular congenital anomalies. There is a wide range in the presentation, from severe respiratory distress after birth to completely asymptomatic. \(^2\) The most common symptoms are inspiratory stridor, dysphagia, wheezing, dyspnea, cough, and recurrent respiratory tract infections. Because of the nonspecific nature and high prevalence of these symptoms in the pediatric population and the relatively rare incidence of a vascular ring, the diagnosis is often overlooked.

CONCLUSION

It is important for pediatricians to be familiar with this condition and the appropriate diagnostic testing, because a vascular ring, although rare, should always be considered in the differential diagnosis of stridor in children.

REFERENCES