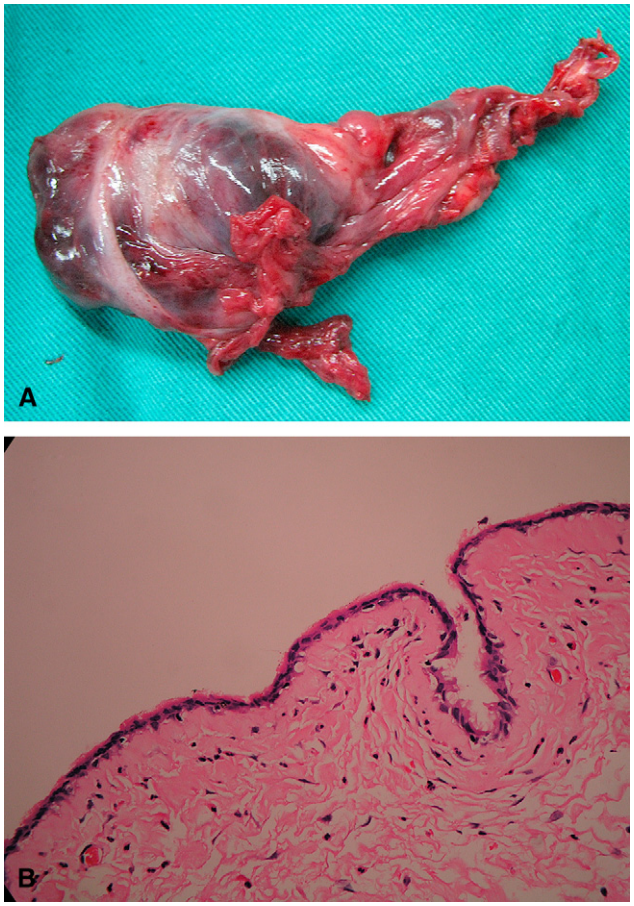

FIGURE 2. A, Excised specimen of giant tracheocele. B, Histologic preparation of specimen. Hematoxylin-eosin stain, magnification 40x.

results from trauma to trachea or from chronic bronchopulmonary disease,[1,4] and the opening that communicates with the trachea is usually large.[4] In our case, the absence of any history of trauma or bronchopulmonary disease, the small communicating orifice between the swelling and the trachea, and presence of fibrocartilagenous tissue in the histopathologic examination point to a diagnosis of congenital tracheocele.

Laryngocele is the diagnosis usually considered for a large, air-filled swelling in the neck because of the common occurrence of this lesion. Both laryngoceles and large tracheoceles may not produce any symptoms other than neck swelling. In such situations, computed tomographic scan usually confirms the diagnosis. Bronchoscopy also may aid in diagnosis. At times, computed tomographic scan may not show clear communication between the swelling and the trachea[1] or the larynx. Bronchoscopy also may not reveal any opening in the larynx or trachea.[4,5] In such situations, a diagnosis of laryngocele may be made; however, the possibility of a large tracheocele should also be kept in mind, as illustrated by our case.

Tracheoceles are more common on the right side.[1,2] Treatment of tracheocele is generally conservative. Surgical excision of large tracheoceles may be undertaken for cosmetic reasons, in pediatric cases with severe respiratory symptoms, or in patients with frequent concomitant infections.[1]

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Late embolization to the aortic arch of an Amplatzer Device used to occlude a baffle leak

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We report a case of late migration to the aortic arch of a percutaneous Amplatzer Septal Occluder Device (AGA Medical Corp, Plymouth, Minn) used to occlude a baffle leak after a Mustard procedure. After an unsuccessful attempt at percutaneous removal of the embolized device from the aortic arch, the device was removed surgically with uncomplicated recovery.

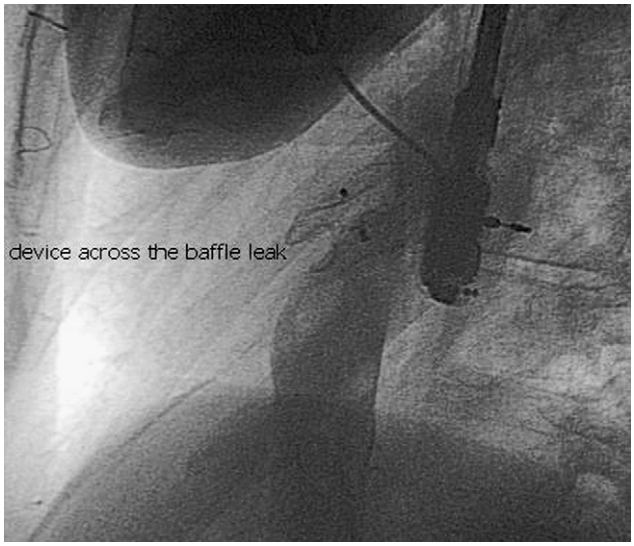

FIGURE 1. Amplatzer Device across the baffle leak.

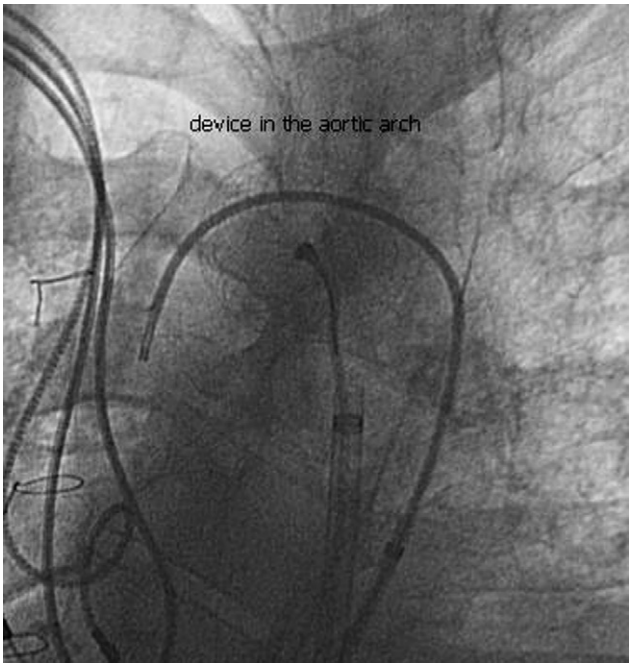

FIGURE 2. Amplatzer Device in the aortic arch.

CLINICAL SUMMARY

A 25-year-old man who underwent a Mustard procedure during infancy for transposition of the great arteries was found to have a significant inferior vena caval pathway baffle leak. This baffle leak was closed percutaneously with a 20-mm Amplatzer Septal Occluder Device (Figure 1). The procedure was successful, with complete occlusion of the leak. At a subsequent follow-up visit, the device was found to have migrated on transthoracic echocardiographic analysis. Investigations that included chest skiagram and cardiac catheterization revealed embolization of the device to the aortic arch (Figure 2). Attempts at percutaneous removal of the device were unsuccessful, and the patient was referred for surgical removal of the embolized Amplatzer Device.

Surgical removal was performed during cardiopulmonary bypass, with a period of profound hypothermic circulatory arrest. Intraoperatively, the device was found wedged under the origins of the innominate and left carotid arteries. It was partly endothelialized and firmly adherent to the aortic wall. The inferior vena caval baffle leak was also closed during the surgical procedure, and the patient had an uncomplicated postoperative recovery.

DISCUSSION

Despite various reports of successful percutaneous closure of baffle leak after a Mustard procedure,[1,2] there has been no previous report of device migration to the aortic arch. Baffle leak is a well-documented late complication, but the percutaneous repair and postintervention care are still not standardized. Our patient underwent an apparently successful device closure of the leak, with satisfactory positioning of the device. During one of his regular follow-up visits 2 years after the intervention, the device was found to have migrated. We hypothesize that because of the floppy nature of the rim around the leak, there is a lack of stability on the platform where the device is placed. This might present a persistent danger of device migration. This is thought to be a contributing factor to a similar complication of device migration in atrial septal defect closures with deficient or floppy rims.[3] The endothelialization of the device to the intima of the aorta could explain the failure to engage the device with a retrieval catheter while attempting to remove it percutaneously without the risk of damaging the aortic wall. This report reinforces the need for regular long-term follow-up of patients who undergo device closures in unusual positions.

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