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EDİTÖRE MEKTUP / LETTER TO THE EDITOR

Percutaneous closure should be given a chance in patent ductus arteriosus with severe pulmonary hypertension

Perkütan kapatmaya şiddetli pulmoner hipertansiyonu olan patent duktus arteriozusda şans verilebilir

Ömer Tepe[1], Çağlar Özmen[1], Ali Deniz[1], Nazan Özbarlas[2], Mehmet Şah Topçuoğlu[3]

[1]Cukurova Faculty of Medicine, Department of Cardiology, [2]Department of Pediatrics Cardiology, [3]Department of Cardiovascular Surgery, Adana, Turkey

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To the Editor,

Angiographic determination of morphological structure plays an important role in device selection during transcatheter patent ductus arteriosus (PDA) closure[1]. PDA can be closed surgically and percutaneously[1-4]. Unless irreversible pulmonary vascular disease develops, it is recommended to close the defect to protect the patient from possible infective endocarditis, even if the shunt is small[2]. However, in patients with high irreversible pulmonary arterial pressure, response to selective vasodilator therapies for pulmonary arterial hypertension should be reevaluated for closure[2-3]. Today, the most commonly used methods for PDA closure are coil and PDA closing devices (exp ADO-1 and ADO-II)[2,3].

A 24-year-old female patient was admitted to our clinic with dyspnea on exertion. There was a continuous murmur on the pulmonary focus. Transthoracic echocardiography showed ejection fraction of 63%, moderate tricuspid valve regurgitation (2/4), and pulmonary artery was measured as wide (33mm). In the parasternal short axis image, a large PDA (19 mm) was detected. In echocardiography, pulmonary artery systolic pressure was measured 110 mmHg. Then, we has done right heart catheterization, we calculated mean pulmonary arterial pressure (PAP) at 65 mmHg and pulmonary vascular resistance (PVR) at 76 dyne / sec / cm^{-5}. Pulmonary arterial hypertension (PAH) specific treatment (Endothelin Receptor Antagonists) was started the patient.

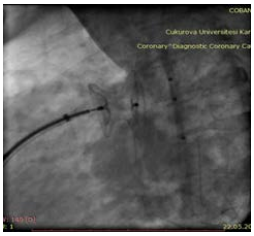

Figure 1. PDA was closed with ASD closing device

Figure 2.Occlusion device embolized to right pulmonary artery in fluoroscopy

Two months later, pulmonary artery systolic pressure decreased to 50 mmHg on echo and 35mmHg on catheterization. Then, PDA closure was planned. Because of the very large PDA, we planned to close with atrial septal defect (ASD) devices (22 mm) (Figure 1). When the patient developed sudden dyspnea 6 hours after the procedure, the closure device was embolized to the right pulmonary artery in the scopy image. It was decided to take the device with the snare (Figure 3). The patient underwent PDA closure surgery. After surgery, pulmonary hypertension treatment was continued for 6 months. No increase was observed in PAPs in control echocardiographic follow-up. The patient's dyspnea complaint regressed.

YazışmaAdresi/Address for Correspondence: Dr. ÖmerTepe, Cukurova Faculty of Medicine, Department of Cardiology, Adana, Turkey E-mail: omer.tepe@windowslive.com
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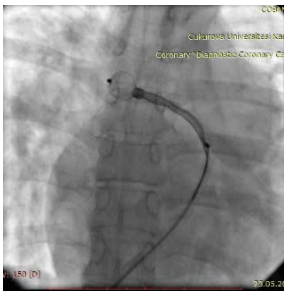

Figure 3. Receiving the closing device with snare

Each congenital heart diseases with high pulmonary artery pressure case should not be considered inoperable[1]. It should be kept in mind that it may be reversible PAH and benefit from PAH-specific therapy. In case of improvement in hemodynamic and echocardiographic data after PAH-specific treatment, patients should be reevaluated for percutaneous PDA and ASD closure[2-4].

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