

## Do we need a femoral artery route for transvenous PDA closure in children with ADO I?

Device closure is the preferred method for a majority of patent arterial ductuses (PDAs) in most centers today. Early and long-term results are excellent and comparable with surgery, with a high closure rate and few major complications. Currently controlled release coils and Amplatzer duct occluders (ADOs; standard or modified) are the devices of choice for the closure of small ( $\leq 2$  mm) and moderate to large ( $> 2$  mm) PDAs. The PDA occluders in a majority of cases are implanted by a transvenous approach using the femoral vein. The procedure is guided (an evaluation of PDA morphology, size, and procedural steps) by injecting a contrast material through a pigtail catheter that is placed in the aortic arch using a retrograde femoral arterial approach. However, arterial guidance, particularly in small pediatric patients, is associated with major or minor peripheral arterial complications that range from 1.5%-10% (1, 2).

In this issue of *The Anatolian Journal of Cardiology* titled "Do we need a femoral artery route in children for transvenous PDA closure with ADO I" Baykan et al. (3) compared the standard technique for the device closure of PDA with an exclusive transvenous approach that was performed under transthoracic echocardiographic guidance and antegrade aortography. Statistical analysis of the data showed no statistically significant difference in the procedural parameters and the complication rates between the two PDA closure techniques. It should also be noted that peripheral arterial complications were only observed in the group of patients who underwent PDA closure with the standard technique (5.4%). According to our experience (unpub-

lished data), PDA closure using venous access and modified ADO II and ADO II AS is the procedure of choice for small pediatric patients with moderate to large PDAs. In this group of patients who were following the diagnostic antegrade aortography, the procedure can be guided by the injections of the contrast material through 5F delivery sheath.

The authors should be congratulated for developing and introducing an important modification of the existing PDA catheter closure technique.

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### References

1. Butera G, De Roosa G, Chessa M, Piazza L, Delogu A, Frigiola A, et al. Transcatheter closure of persistent ductus arteriosus with the Amplatzer duct occluder in very young symptomatic children. *Heart* 2004; 90: 1467-70. [\[CrossRef\]](#)
2. Thanopoulos BV, Eleftherakis N, Tzannos K, Stefanadis C, Giannopoulos A. Further experience with catheter closure of patent ductus arteriosus using the new Amplatzer duct occluder in children. *Am J Cardiol* 2010; 105: 1005-9. [\[CrossRef\]](#)
3. Baykan A, Nazmi N, Özyurt A, Argun M, Pamukçu O, Onan SH, et al. Do we need a femoral artery route for transvenous PDA closure in children with ADO-I? *Anatol J Cardiol* 2015; 15: 242-7.



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