

Removal of an embolized transcatheter occluder device: the contradictory surgical treatment of a percutaneous complication

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Dear Editor,

I wish to provide some perspective about the embolization of an Amplatzer ductal occluder with regard to a recent case report which appeared in your journal. The author, Mr. F. Gümüş,^[1] reported his experience on the removal of an embolized Amplatzer patent ductus arteriosus (PDA) occluder device.^[1] It was clear from his paper that he had no attempt to perform percutaneous methods before the surgical operation.

As a basic information considering the transcatheter treatment of atrial septal defect and PDA, Amplatzer septal/ductal occluder (ASO/ADO) device has been used safely, efficiently and with success. Unfortunately, the worst complication of this procedure, which is the device embolization, requires immediate intervention either percutaneous or surgical. The device embolization can be seen in 0.55-3.8% of these cases.^[2-4] However, this complication should be overcome primarily by percutaneous methods before an open surgical approach. Balbi et al.^[2] reported that the success rate of percutaneous retrieval of an embolized device is 50%. Similarly, Chan et al.^[5] presented a case of embolized device into the right ventricle and a successful retrieval by using percutaneous gooseneck snare. An embolized device may be simply rescued by using a loop snare, an endocardial biopsy forceps, a Fogarty catheter, or a 15 mm Amplatz GooseNeck Snare, through a femoral arterial percutaneous access instead of this massive surgical operation.^[3-5] In the light of all these aforementioned references, which are the obvious examples of how can an embolized device be rescued, the preference of a surgical option without trying any previous percutaneous maneuver seems to be incorrect.

As the authors mentioned themselves, Gümüş et al. did not try a percutaneous intervention and, instead,

they directly switched to an extensive open surgery. What was the reason for making this decision? Why did they not consider percutaneous options before surgery? Moreover, this contradictiously extensive surgery including both median sternotomy and median laparotomy together in a five-year-old child may cause more serious morbidity and unfortunate results, compared with an existence of PDA itself.

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Author's Reply

Dear Editor,

We thank for the insightful comments and the opportunity to clarify a number of points from our case report titled 'Open abdominal surgery for migration of patent ductus arteriosus (PDA) occluder device' which appeared in the recent publication of your journal.^[1]

As previously mentioned, percutaneous treatment of PDA is a safe and efficient method, but device embolization is a well-known, but rarely seen complication which requires an immediate percutaneous or surgical intervention.^[2] Indeed, we agree that, device embolization should be overcome primarily by percutaneous approach before surgery. As mentioned in our case report, 'Several attempts by catheter retrieval failed' and also 'Preoperatively monitorized femoral pulses became feeble'.

We did not directly switch to open abdominal surgery, contrarily we tried percutaneous attempts to rescue the embolized device.

In conclusion, surgical approach is a useful, but not primarily used method for device embolization.

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