



Transcatheter occlusion of congenital umbilical arteriovenous malformation in a neonate

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History and physical:

The patient was a full-term newborn who presented soon after birth with respiratory distress and continuous murmur over the lower abdomen.

Imaging:

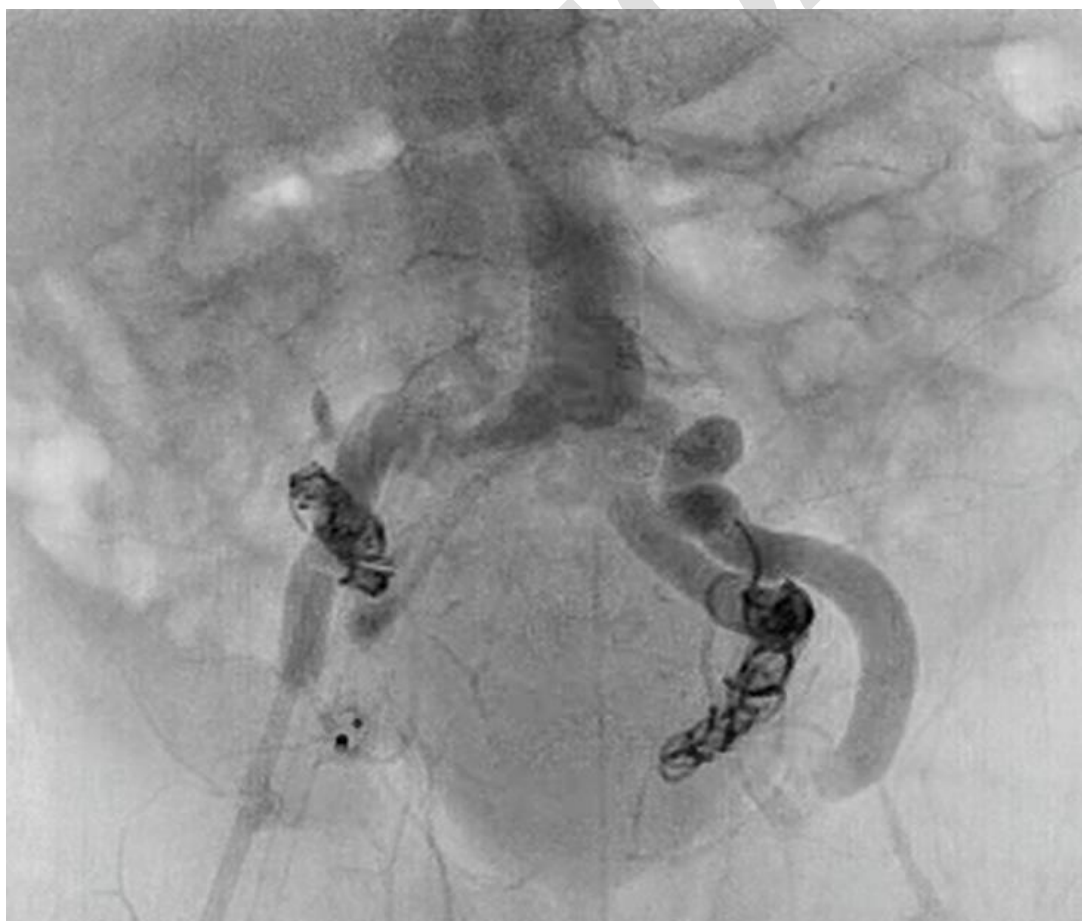
Echocardiography and abdominal ultrasonography (USG) revealed the suspicion of umbilical AVM which was later confirmed by Cine-angiography.

Indication for intervention:

On the seventh day of life, because of the progression of heart failure, the patient was brought to catheter laboratory for closure of AVM.

Intervention:

The umbilical AVM was successfully occluded using 14 Cook coils and 1 vascular plug. Immediately after the procedure, there was some residual flow from the external iliac and coeliac arteries. On the 4th day post-procedure, abdominal ultrasonography revealed dilated IVC and hepatic veins, and the feeders from iliac arteries were no longer seen. Clinical and echocardiographic review of the patient after 3 months showed no residual AVM and complete resolution of heart failure symptoms.





Learning points of the procedure:

1. Technical challenges to navigate complex anatomy in a neonate.
2. Assessment of possible causes of congestive heart failure in a newborn with structurally normal heart has to rule out large AVM.

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