Case Summary. Case of acute cardiac tamponade caused by PDA occlusion are very rare. Two reasons may explain this complication. First, the ductus arteriosus may be too thin that the guidewire directed catheter MP could not reach the ductus arteriosus after arriving the main pulmonary artery. Second, ductus arteriosus may be damaged when the guidewire was pulled to the descending aorta by snare. Cardiac tamponade may be related to the reverse operation of pulling the guide wire. In this case, bleeding occurred after damaging of ductus arteriosus by guide wire. The girl maybe happened to be in the 20% of arterial ligaments which has blind sac.

TCTAP C-232
Transcatheter Occlusion of a Large Coronary Artery Fistula in a 15 Days Old Neonate
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[CLINICAL INFORMATION]
Patient initials or identifier number. PJ / HN 244019-57
Relevant clinical history and physical exam. A 38 week male neonate, 2,920 gram, found to have differential saturation from our routine screening program at the age of 4 days. His SpO2 on right upper limb and right lower limb was 97% and 91% respectively. He had tachypnea and shortness of breath during feeding. Cardiac examination revealed an active precordium with a grade 3/6 pan-systolic murmur at the left upper sternal border and a liver edge palpable 3 cm below the right costal margin. Chest radiograph demonstrated cardio megaly (CT ratio > 0.7) with increased pulmonary vasculature. (Image 1) Electrocardiogram showed left ventricular hypertrophy with strain pattern. (Image 2)

Relevant test results prior to catheterization. A transthoracic echocardiogram showed a dilated left main coronary artery (LMCA) with a huge fistulous tract from the left circumflex coronary artery (LCX) draining to the right atrium. The normal left anterior descending coronary artery (LAD), the dilated right atrium (RA) and the right ventricle (RV) with decreased RV systolic function were also identified. (Images 3-5) In addition, he had severe tricuspid regurgitation with a pressure gradient of 40 mmHg and dilated main pulmonary artery and its branches.
Relevant catheterization findings. To identify precise anatomy of the fistulous track and possibility for transcatheter closure, the patient underwent cardiac catheterization under general anesthesia. Ascending aortic angiography revealed the large LCX fistula draining into the RA with normal appearance of the LAD and the right coronary artery (RCA). (Images 6-7)(video 3-4)
[INTERVENTIONAL MANAGEMENT]

Procedural step. Balloon occlusion test near the exit point of the fistula, using a 5Fr pressure wedge balloon catheter, was performed showing no coronary branches originated from this fistula. (Image 8) (video 5) The ECG 10 minutes after balloon occlusion test showed no change of ST-T segment.

After successful AV-loop creation, the JR guiding catheter 5 Fr was introduced into the middle of the fistulous track via right femoral vein. Occlusion of this fistula was successfully performed using the Amplatzer Vascular Plug II (St Jude Medical, Minneapolis, USA) 6x6 mm. (image 9) (video 6) Selective left main coronary artery angiography confirmed a suitable device position without significant residual shunt. Post-procedure recovery was uneventful. Warfarin was started few hours after the procedure to maintain INR of 2. He was discharged home 14 days post procedure. At 5 months follow up, he had been doing well with normal cardiac examination (image 10). Echocardiogram showed total occlusion of the fistulous tract with normal ventricular systolic function.

Case Summary. Surgery is the traditional method for coronary AV fistula treatment. However, nowadays, transcatheter device closure is an effective alternative therapeutic modality. To our knowledge this is youngest reported case utilizing device closure. This report confirmed the feasibility and safety of percutaneous treatment of a huge CAF in the neonate with intractable heart failure.

TCTAP C-132
The Retrieval of the Embolized Occlutech Figulla Flex II in the Left Ventricle of Child
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[CLINICAL INFORMATION]
Patient initials or identifier number. YHR
Relevant clinical history and physical exam. 2 month old female patient visit our hospital for murmur evaluation and we detected 7mm-sized secundum atrial septal defect (ASD) with transthoracic echocardiography (TTE). After 3 years later, the defect size increased to 14mm on TTE and mild cardiomegaly and congestion detected on chest X-ray. So, we decided to to percutaneous closure of ASD.