

**P-197**

**Transcatheter embolectomy with thrombus fragmentation and aspiration in adolescent pulmonary embolism**

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Pulmonary embolism is rare in pediatric patients, but the incidence of the disease is increasing in past decades. It may be life-threatening and requires prompt and active treatment.

We present two cases of pulmonary embolism in adolescent patients with successful transcatheter embolectomy with thrombus fragmentation and aspiration.

The first case is 15 year-old girl. At the age of 10 years she was operated on for astrocytoma. The patient was admitted in severe condition, with dyspnea, tachycardia, and hypoxemia.

Echocardiography showed right ventricular (RV) dilation (RV/LV ratio – 0.85) and pulmonary hypertension. CT showed massive thrombi with subtotal occlusion of the two pulmonary arteries.

Transcatheter treatment was performed with thrombus fragmentation with rotation of a pigtail catheter and suction embolectomy. RV pressure dropped from 75 mmHg before the procedure to 55 mmHg after the procedure.

The second case is 17 year-old female one month after delivery of a healthy baby. Two weeks after the delivery she presented with shortness of breath, chest pain, tachycardia, and hypoxemia. CT

showed subtotal left pulmonary artery (LPA) occlusion and partial RPA occlusion. In this patient thrombus fragmentation, suction embolectomy and PTA of the LPA were performed. Pulmonary blood flow was improved, but RV pressure showed no significant change.

In the two patient local fibrinolysis with Alteplase was performed. Standard anticoagulant treatment with heparin followed by acenocumarol was carried-out.

In both patients six months after the procedure CT examination showed no residual thrombi in the lung vessels.

Transcatheter treatment with thrombus fragmentation, embolectomy, and local fibrinolysis is safe and effective approach in pulmonary embolism in adolescent pediatric patients.