Massive Left Pulmonary Artery Pseudoaneurysm in a Young Child

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Pulmonary artery (PA) pseudoaneurysm is a rare but life-threatening disorder. We describe an unusually large PA pseudoaneurysm in a young child that posed diagnostic and therapeutic challenges.

An 18-month-old male child, weighing 7 kg, had presented with recurrent hemoptysis. Chest X-ray showed complete opacification of the left hemithorax (Fig. 1). A computerized tomography angiogram (Figs. 2 and 3) revealed a massive pseudoaneurysm arising from the left lower PA. The sheer size of the pseudoaneurysm made conventional surgical approach difficult. A hybrid strategy of percutaneous closure of the pseudoaneurysm followed by surgical removal was considered.

A selective left PA angiogram clearly delineated the anatomy (Fig. 4). A 6-F right coronary guiding catheter Judkins right 3.5 (Cordis Corp., Miami, Florida) was introduced across the neck of the pseudoaneurysm with the help of a 4-F multipurpose catheter (catheter-in-catheter). An Amplatzer vascular plug (9-PLUG-012, AGA Medical Corporation, Minneapolis, Minnesota) was successfully deployed (Fig. 5). The flow across the pseudoaneurysm was completely abolished, and the left lung was expanded. The aneurysm significantly decreased in size at short-term follow-up.

Pulmonary artery pseudoaneurysms commonly result from infection, trauma, or interventional procedures on the pulmonary artery (1). The cause of pseudoaneurysm in our case remains unclear. This might be the largest pseudoaneurysm reported in the published data in a young child. Percutaneous coil occlusion of the feeding artery of the pseudoaneurysm is standard treatment (2). Percutaneous injection of thrombin glue, stent graft, and covered stent have also

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been used in the management of PA pseudoaneurysm (3). In our case, the larger size of the pseudoaneurysm and smaller size of the patient were the major challenges. We initially even considered a combined approach. However, complete closure was achieved with an Amplatzer vascular plug alone.

In conclusion, a massive pseudoaneurysm of left pulmonary artery in a young child was successfully treated nonsurgically with a vascular plug.

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