## 00619 Percutaneous transcatheter embolization of a huge pulmonary arteriovenous fistula with a septal occlusion device

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 YES

<B>Background</B> Pulmonary arteriovenous fistulas (PAVFs) are rare vascular anomalies of the lung that could induce to severe hypoxiemia because of right-to-left intrapulmonary shunts. Here we report a case of a huge solitary PAVF in a man who underwent a successful percutaneous interventional closure with septal occlusion device.

<B>Case report</B> A 47-year-old man suffered from the left chest pain more than two weeks. He had no obvious incentive to two weeks ago with chest pain and chest tightness, so he went to another hospital for examination. The chest X-ray showed a lot of left pleural effusion, and chest CT examination revealed the block shadow in the left lower lobe. Then he came to our hospital for further diagnosis and treatment. Physical examination showed that lips and nail beds were cyanotic. The percutaneous oxygen saturation at rest was 86% on room air. Chest CT showed a diameter of about 9.0cm mass shadow with smooth edge in the left lower lobe, and enhanced CT showed homogeneous significantly enhancement. The mass is connected with the left lower pulmonary artery, and connected with a thick vein draining into the left atrium. Hence, we considered the mass was a huge PAVF. We made a left pleural closed tube drainage, the pleural effusion was exudate.

Selective angiography of the left pulmonary artery confirmed the diagnosis of a large solitary PAVF in the left lower lobe. Because of these anatomic constraints, we decided to use a septal occlusion device to interrupt the fistula. We selected a 16-mm Amplatzer septal occlusion device. A 14F delivery sheath was guided into the right femoral vein through the fistula. Using an angiographic road map, we deployed the distal and proximal discs by withdrawing the sheath under fluoroscopic guidance. A final control angiography confirmed complete occlusion of the PAVF. Percutaneous oxygen saturation rose to 97% on room air and remained stable during 120 hr of hospitalization. At the first follow-up evaluation, 3month later, he no longer complained of dyspnea on exercise or any respiratory symptoms. A three-dimensional reconstruction of a CT scan showed obliteration of the fistula.

<B>Conclusion</B> The efficacy of the septal occlusion device has not yet been proved in adult patients with congenital PAVFs. We described here that the septal occlusion device is an easy and safe method to occlude PAVFs, and a useful alternative treatment option for percutaneous transcatheter embolization because of its availability in large and varying sizes.

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