

Commentary on Donor Pulmonary Vein Anomalies

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Received: 25 February 2022; Accepted: 09 March 2022; Published: 13 March 2022

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Abstract:

Systemic and Pulmonary venous anomalies are uncommon and often unexpected findings during organ procurement. While systemic venous anomalies are easier to recognize during the harvest, pulmonary venous anomalies due to their inherent course are more difficult to do so and consequently a surprise either on the back table or just before the lung/s being implanted. We have reported our experience with implanting an anomalous left upper pulmonary vein, a continuation of the embryological vertical vein.

Description

Pulmonary venous anomalies are rare and often unrecognized during donor lung procurement due to lack of adequate imaging studies. They are therefore at risk for injury during harvest and present the implanting surgeon with a technical challenge [1, 2].

Among the few reports available in the literature, the anomaly was recognized on the back table [3, 4] and in one of them it was apparent after reperfusion [5].

In cases with a persistent vertical vein, recipient pericardium, donor iliac vein or a synthetic extracellular matrix conduit have been used to restore continuity. We identified the anomalous left upper pulmonary vein and anastomosed it to the recipient's left atrial cuff whereas in another instance the left atrial appendage was used [4, 6].

Conclusion

Reviewing donor anatomy and imaging thoroughly can help identify these anomalies. However, imaging is usually without contrast and the emphasis is on assessing lung quality thereby making these anomalies difficult to identify. When picked up early it can allow the recipient team to plan reconstruction while one must improvise after it is noticed before implant.

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