

**Transdiaphragmatic cavoatrial anastomosis during orthotopic liver transplantation in a patient with chronic Budd-Chiari syndrome and thrombosis of inferior vena cava proximal to the right atrium - case report and review of literature**

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**Abstract**

**Introduction:** Budd-Chiari syndrome associated with inferior vena cava (IVC) thrombosis extended to the right atrium is a rare condition, which requires liver transplantation with different techniques of caval reconstruction. The procedure is technically demanding, especially if it is performed solely transdiaphragmatically.

**Case presentation:** An orthotopic liver transplantation (OLT) was performed in April 2014 in a 24-year old male patient with Budd-Chiari syndrome due to idiopathic thrombophilia and complete thrombosis of the retrohepatic IVC, up to its intrapericardic portion. Due to the impossibility of performing a cavo-caval anastomosis, a transdiaphragmatic anastomosis between the recipient right atrium and the donor superior cuff of the IVC was performed, without sternotomy.

**Results:** Postoperative course was uneventful except for persistent ascites, which was successfully managed with diuretics. The patient was discharged after 34 days; 9 months postoperatively he has optimal liver function and has returned to normal life.

**Conclusion:** A transdiaphragmatic cavo-atrial anastomosis represents a feasible option in the setting of OLT, when the recipient IVC cannot be used due to extensive thrombosis, especially if it is performed by a multidisciplinary operative team.

**Key words:** orthotopic liver transplantation, transdiaphragmatic cavoatrial anastomosis, Budd-Chiari syndrome, inferior vena cava obstruction

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