

Immediate postoperative Doppler ultrasonography findings of the liver transplantation

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Orthotopic liver transplantation (OLT) is the only definitive treatment for irreversible acute liver failure and chronic liver disease. In the immediate postoperative period after OLT, patients are closely monitored with Doppler ultrasonography (US) to detect treatable vascular complications and ensure graft survival. The first postoperative Doppler US examination is performed fairly early on the first postoperative day, before surgical wound closure has been performed. The immediate postoperative images, obtained when the effects of surgery are very recent, often reveal an array of findings that may appear alarming but that tend to normalize within a few days and are compatible with changes related to the surgery itself. These findings include a starry-sky appearance of reperfusion hepatic edema, transient foci of increased echogenicity, pneumobilia, small fluid collections, perihepatic hematomas, pleural effusion, temporary elevation of hepatic arterial velocity, transient elevation of resistive index (RI), decreased RI with tardus parvus waveform, increased portal venous flow and mono- or biphasic waveforms of the hepatic veins. Most of these changes revert to normal in the first postoperative week; deterioration atypical of transient changes requires further evaluation.

Biography

Temel Tirkes has completed his M.D from Marmara University school of Medicine in Istanbul. Dr. Tirkes continued his post-graduate training in the USA. He completed his internship at University of Virginia, diagnostic radiology residency at University of Rochester, and abdominal imaging fellowship at University of Pennsylvania. He worked at University of Texas Southwestern Medical Center in Dallas from 2002 to 2008. He is currently a member of abdominal imaging section in University of Indiana School of Medicine since 2008.

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