

5<sup>th</sup> World Congress on

# SPINE AND SPINAL DISORDERS

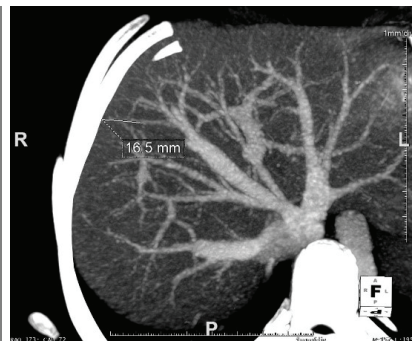
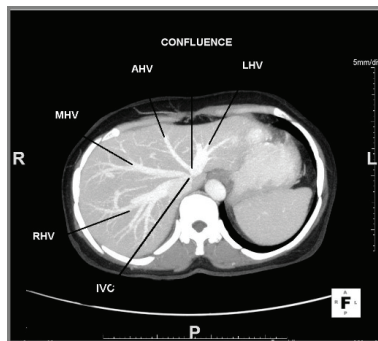
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## CT study of surgical anatomy of Hepatic Veins – Application in Liver Transplantation Surgery

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**Statement of Problem:** Living-Donor Liver Transplantation (LDLT) is a surgical option for patients who are deteriorating clinically while awaiting cadaveric donor liver. In the right lobe transplantation, the hepatectomy line passes approximately 1 cm to the right side of the middle hepatic vein as a standard procedure. In LDLT, anatomy of hepatic venous system is important, not only to carry out complex reconstructions, but also to avoid graft congestion after liver transplant in the graft recipient. Hence pre-operative evaluation of venous drainage and awareness of probable complications is a pre-requisite for transplantation surgeries.



**Methodology:** We conducted a retrospective multi-slice spiral CT study of hepatic veins, whereby, we studied 100 abdominal CT scans which were reported as normal. We studied the length, the number of branches of hepatic veins and measured the distance of their peripheral-most branch from the nearest hepatic surface. We have also seen for the presence of accessory hepatic veins.

**Findings:** We observed that right hepatic vein was longest (mean length-131.26mm) hepatic vein followed by middle (mean length-122.62mm) and last of all, the left (mean length- 93.15mm) hepatic vein. Most of the right (46%) and middle (45%) hepatic veins were visualized up to third order while most of the left (42%) hepatic veins were having less branches and were visualized up to second order. Most of the right (45) and left (49) hepatic veins were 10-15mm from the hepatic surface while most of the middle hepatic vein was in the range of 15-20mm. We found Accessory hepatic veins in 18% of cases.

**Conclusion and significance:** Hence in liver transplantation, pre-operative evaluation of venous architecture of liver of donor and recipient is necessary for reconstruction anastomoses and to avoid major hemorrhage during surgery.

### Biography

Alka Bhingardeo, currently working as Assistant Professor, at AllMS Telangana, has passion for research. Her study of CT study of venous drainage of liver has described variations in draining pattern of hepatic veins which can alter surgical approach in living live donor liver transplantation and prevent graft rejection and hemorrhage. The information of probable variations in hepatic veins necessitates transplantation surgeon to have preoperative evaluation of hepatic veins of donor and recipients for successful liver transplantation.

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