

SUPRAHEPATIC VENA CAVAL CUFF IN LIVER TRANSPLANTATION

Among the many technical challenges encountered in the course of a liver transplantation procedure, the suprahepatic caval anastomosis is perhaps the most formidable. The segment of cava lying between the liver and diaphragm is quite short, posing hazardous difficulties in dissection and vascular control during recipient hepatectomy. Additional anatomical factors, such as obesity or a narrow costal margin, may further increase these technical difficulties. In instances in which an adjoining liver tumor or a hard, unyielding, fibronodular liver restricts exposure for careful dissection, the vena cava and its hepatic radicle may be inadvertently entered. This is frequently a lethal complication. Extensive portasystemic collaterals around the

bare area of the liver may further aggravate these technical difficulties in some instances. Starzl has developed a technique for lengthening the difficult vena caval cuff (1).

During a liver transplant procedure in a patient with Budd-Chiari syndrome, extensive suprahepatic fibrosis around the cava and hepatic vein tributaries was encountered. The fibrosis of cryptogenic etiology was apparently the mechanical basis for the Budd-Chiari syndrome. Because of the absence of normal tissue planes, safe vena caval control would have been impossible except for the maneuver described below: A 3 inch curvilinear incision in the tendinous diaphragm was made to enter the pericardial cavity (Figure 1A). The inferior vena cava was encircled carefully by tape with digital palpation as shown in Figure 1B. After hepatic replacement the diaphragmatic incision was closed in two layers of interrupted silk. The pericardial sac was drained by a large Hemovac drain brought out through a separate stab incision anteriorly over the bare area of the pericardium.

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LITERATURE CITED

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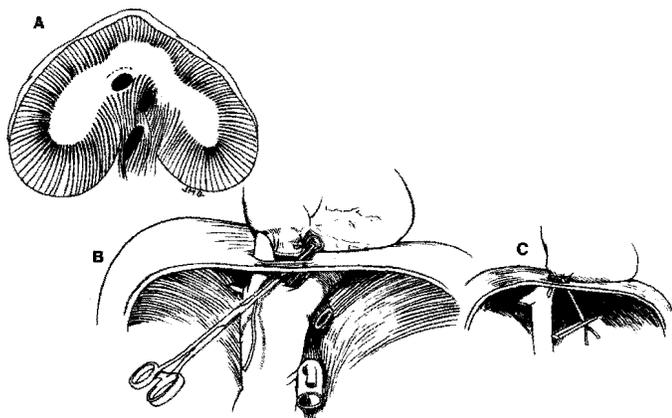


FIGURE 1. A curvilinear incision is made in the diaphragm anterior to the vena caval hiatus (A). Tapes can be placed around the vena cava in the pericardial sac and Rummell's tourniquet applied (B and C).