

Limitation of portal vein embolization for extension of hepatectomy indication in patients with hepatocellular carcinoma.

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Publication Date: 2004

Abstract:

Background/Aims: Although percutaneous transhepatic portal vein embolization (PTPE) expands the candidate pool for hepatectomy in patients with hepatobiliary malignancies, the role of PTPE in patients with active hepatitis or cirrhosis has yet to be determined. Methodology: Records of patients who underwent PTPE of the right portal vein between 1984 and April 2001 were reviewed retrospectively. To determine the indication for PTPE and subsequent hepatectomy, clinical variables, including serum concentrations of hyaluronic acid (HA), procollagen type III peptide (P-III-P), and the 7S domain of type IV collagen (7S-IV), were compared between patients who underwent right hepatectomy (group A; n=44) and the other patients (group B; n=17). Results: The scores for prediction of postoperative liver failure (prediction score) and serum HA and P-III-P concentrations were different in the two groups. Thirteen of 30 patients (43%) whose prediction score was more than 50, the limit of the hepatectomy without PTPE, successfully underwent right hepatectomy following PTPE. The resectability ratios increased to 75% and 100%, when the HA concentration was ≤ 100 mg/L and the P-III-P concentration ≤ 0.7 /mL. Conclusions: Serum HA and P-III-P concentrations are useful guidelines for identifying candidates for right hepatectomy following PTPE.