

## Portal vein embolization in hilar cholangiocarcinoma

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Patients with proximal bile duct carcinomas are more likely to have postoperative liver dysfunction because of the extensive resection of nontumorous liver necessary to achieve an oncologically adequate liver resection. To overcome this problem, portal vein embolization (PVE) has been increasingly used before resection. In the treatment of cholangiocarcinoma, extended right hepatectomy usually with segment 1 resection is often needed for curative resection (1, 2). Sufficient volume of remaining segments 2 and 3 is important to minimize the risk of postoperative complications. The authors recommend the embolization of segment 4 before an extended right hepatectomy because they found increased hypertrophy in segments 2 and 3 after right PVE that included segment 4 branches.(3) The standardized future liver remnant (standardized future liver remnant = future liver remnant/estimated total liver volume) can be used to determine whether PVE is indicated.(4) PVE is a safe procedure, but it has contraindications. These include severe coagulopathy, tumoral extension into the future liver remnant, portal hypertension (the authors recommend measurement of portal pressure before embolization); and biliary obstruction in the future liver remnant (an ipsilateral biliary drainage catheter should be performed).(5, 6)

### References

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