

Reconstruction of the common hepatic artery with right gastro-epiploic graft during Whipple procedure

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Introduction

During a Whipples pancreatico-duodenectomy it was found that the tumour was infiltrating into the common hepatic artery along a length of 2 cm (Figure 1).

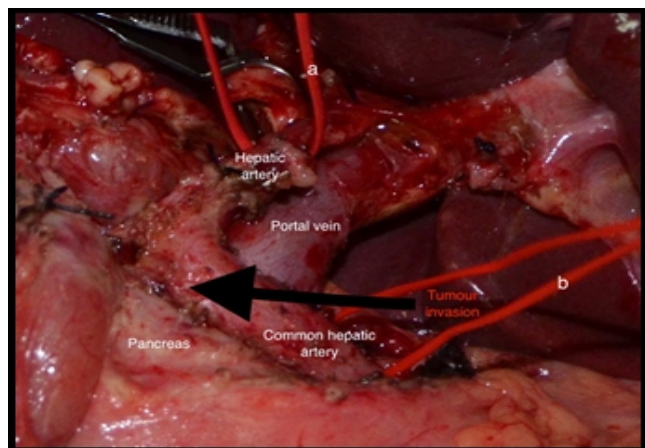


Figure 1. Pancreatic tumour invading the common hepatic artery

The artery was dissected proximally up to the coeliac axis and distally up to the origin of the left and right hepatic artery. A tumour free margin was defined and slung. The invaded

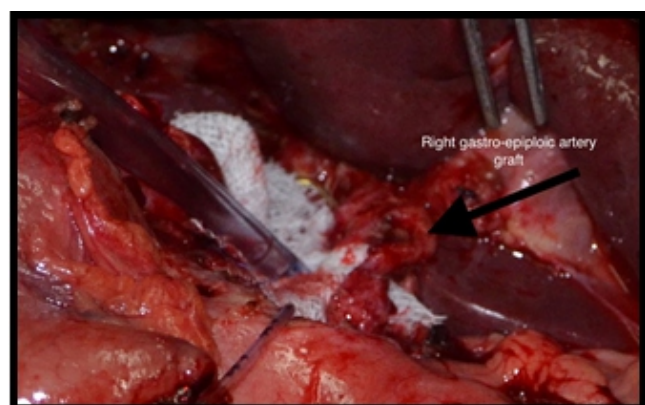


Figure 2. After reconstruction with right gastroepiploic artery graft

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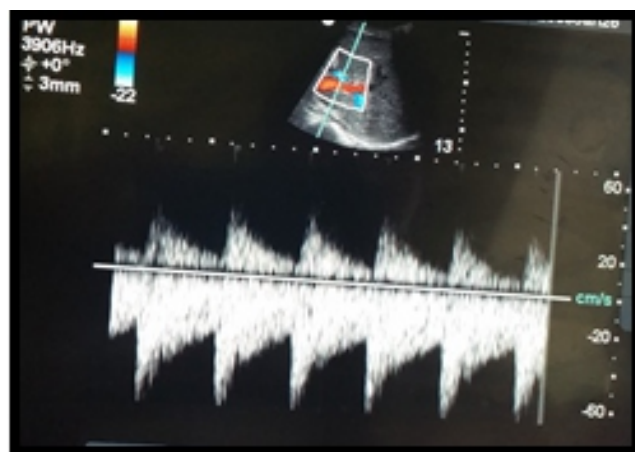


Figure 3. Tri-phasic Doppler flow in hepatic artery after reconstruction

segment was divided after placing fine bulldog clamps. A 3 cm segment of right gastroepiploic artery was dissected and harvested from its origin. Artery was flushed with heparin saline under pressure and dilated. The common hepatic artery was reconstructed with the harvested graft using interrupted 8/0 proline (Figure 2).

The patient recovered unremarkably and was discharged.

Discussion

Vascular resection is demanding and beneficial in selected cases to achieve R0 resection [1]. It has been seen to increase the median survival compared to patients who undergo palliative bypass surgery [2].

Partial wedge resection of the vascular wall is suitable when invasion of the blood vessel is less than 1/3 of the circumference. An artificial or autologous patch may be necessary for repair (3). End to end reconstruction can be done with smaller segment resections.

Previously extra anatomical reconstruction has been described in living donor liver transplantation using right gastroepiploic, right gastric, gastroduodenal, left gastric and splenic artery as the inflow. Similarly this case demonstrates the possibility of using the same as an interposition graft.

All authors disclose no conflict of interest. The study was conducted in accordance with the ethical standards of the relevant institutional or national ethics committee and the Helsinki Declaration of 1975, as revised in 2000.

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