



RESEARCH TOPIC CLI15

Investigating mechanism of liver regeneration after scaffold sparing hepatectomy and major hepatectomies by means of vessel amputation

Clinical Unit name

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Abstract

Following major hepatectomies, the liver exhibits remarkable regenerative capacities, but postoperative liver failure (PLF) still represents the major cause of morbidity and mortality. The risk is linked to regeneration power of future liver remnant (FLR). Since vessel amputation is the only way to remove liver tumors, the PLF prevention consists in boosting the FLR through portal vein embolization and subsequently staged hepatectomies. The limitation of these approaches are patient dropout, morbidity and mortality and lower salvageability in case of recurrence. New techniques aimed to preserve the functioning liver have progressively improved. New concepts as R1vascular surgery and a better knowledge of the liver outflow rearrangements for hepatic vein neoplastic obstruction, allowed vessel sparing major resection, namely scaffold sparing hepatectomy (SSH). Despite the substantial liver tissue removed, SSH is featured by a high safety with minimal mortality and morbidity. A better understanding of the mechanisms underlying liver regeneration in SSH, compared to conventional approaches, is mandatory to better establish and develop this new surgical technique.

Scientific references

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