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Topic : **Liver**

ROBOTIC LIVING DONOR HEPATECTOMY: A MINIMALLY INVASIVE APPROACH TO EXPANDING THE DONOR POOL

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Background : The growing indications for liver transplantation have increased waiting list numbers. Amid organ shortages, living donor hepatectomy expands the donor pool, reduces cold ischemia time, and improves graft function. Robotic liver resections in high-volume centers show low postoperative morbidity, with robotic living donor hepatectomy in Europe previously limited to Italy

Methods : Recording and editing of a surgical case of a robotic living donor hepatectomy.

Results : The authors present a video of a 56-year-old woman undergoing a right-living donnor hepatectomy. Preoperative volumetry showed 1157.37 cc total and 726 cc (63%) of right liver volume. Graft-to-recipient weight ratio (GRWR) was 1.07 for the right hepatectomy. The video details the procedure, with no complications on the post-operative period.

Conclusions : The robotic approach offers advantages in liver surgery, including enhanced 3D visualization, greater precision, and improved handling of complex vascular and biliary variations, leading to lower morbidity for living donors. Its cosmetic benefits also play a key role. This video presents Portugal's first right liver donnor hepatectomy, demonstrating the extension of robotic liver resection benefits to liver transplant surgery.

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