Long term outcomes of ALPPS procedure for Primary and Metastatic Liver Tumors: Ankara University Experience

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INTRODUCTION

Associating liver partition and portal vein ligation (ALPPS) was offered as a surgical option in liver resection for bilobar malignant disease with predicted small future liver remnant (FLR) volume. In here we present our experience with ALPPS surgery performed in Ankara University for five years.

METHODS

Thirty patients were operated with ALPPS approach at Ankara University Ibni Sina Hospital between December 2012 and January 2018. Mean patient age was 54.6 (35-72). Indication for operation was colorectal cancer liver metastasis for 18 patients, cholangiocellular cancer for 5 patients, hepatocellular cancer for 3 patients, neuroendocrine tumor metastasis for 2 patients. Solitary stomach cancer metastasis and sarcoma metastasis were indications of two patients.

RESULTS

Mean interval between stages was 18.9 (7-48) days. Calculated mean preoperative FLR / total liver volume ratio was 24.6% (8.8% - 45%). Mean volume increase between stage 1 and stage 2 was 71.67% (7% - 169%). Mean hospital stay after stage 1 was 12.5 (5-25) days and after stage 2 was 15.8 (5-41) days. Four patients (13.3%) experienced biliary complications which required intervention. Vascular complication was not seen. Recurrence was occurred in 13 (43.3%) patients mean 7.5 months after resection, 7 (23.3%) were local recurrence. Two death were occurred in postoperative 90-day period because of pneumonia and pulmonary embolism. In follow up; 8 patients died; 6 due to recurrence and 2 for other reasons. Kaplan–Meier survival analysis revealed an estimated mean 76%, 46% and 46% survival for 1, 3, and 5 years respectively.

CONCLUSION

According to our experience, ALPPS approach with decreasing and acceptable morbidity and mortality can be a safe and feasible option for treatment liver tumors. Large series are needed for refinement for different indications and identifying risk factors.