



Submission No.: PG10-9229

Session : Postgraduate Course 10 (Liver)

Date & Time, Place : November 16 (Thu), 15:00-16:30, Room 3F-1

Session Title : Present & future perspectives of minimal invasive donor hepatectomy

Advantages or difference compared to open

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Like the normal developmental stages of human beings, the transition from infancy to adulthood is a stepwise process. Any type of newly developed surgical procedure follows the same rhythm and dynamics.

It has been a decade since the first laparoscopic donor hepatectomy was introduced. Minimally invasive surgery potentially reduces operative morbidities. However, pure laparoscopic approaches to donor hepatectomy have been limited by technical complexity and concerns over donor safety. Reduced wound donor hepatectomy, either in the form of a laparoscopic-assisted technique or by utilizing a mini-laparotomy wound, i.e., hybrid approach, has been developed to bridge the transition to pure laparoscopic donor hepatectomy, offering some advantages of minimally invasive surgery. To date, a pure laparoscopic donor left lateral sectionectomy has been validated for its safety and advantages and has become the standard in experienced centers. Pure laparoscopic approaches to major left and right liver donation have been reported for their technical feasibility in expert hands. Robotic-assisted donor hepatectomy also appears to be a valuable alternative to pure laparoscopic donor hepatectomy, providing additional ergonomic advantages to the surgeon. Existing reports derive from centers with tremendous experience in both laparoscopic hepatectomy and donor hepatectomy. The complexity of these procedures means an arduous transition from technical feasibility to reproducibility. Donor safety is paramount in living donor liver transplantation. Careful donor selection and adopting standardized techniques allow experienced transplant surgeons to safely accumulate experience and acquire proficiency. An international prospective registry will advance the understanding of the role and safety of pure laparoscopic donor hepatectomy.

The other prerequisite for a successful Laparoscopic donor hepatectomy is case selection. In case of biliary/ portal anomalies in the donors, one should exercise extra caution to safeguard the donors' safety.

Further technological advancement can broaden laparoscopic surgeons' horizons, and the availability of more skilled laparoscopic surgeons can take laparoscopic donor hepatectomy to the next step.