Robotic Distal Pancreatectomy: Is Hybrid Operation a Viable Approach?

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Context Robotic distal pancreatectomy (RDP) is a safe and feasible operation with increasing reports in the literature. The debate is still open whether a hybrid approach could be a viable option versus a fully robotic operation. Objective To analyze the preliminary experience with RDP comparing a hybrid versus a fully robotic approach. Methods All patients undergone RDP were analyzed. A hybrid approach was initially preferred, using laparoscopic harmonic scalpel to perform some steps of operation, including pancreatic gland transection. Patients’ characteristics, pre- and intra-operative data as well as postoperative outcome were prospectively collected in an institutional database. Size of tumor, time of operation and robotic docking, blood loss, post-operative pancreatic fistula (POPF), intra-abdominal fluid collection, and postoperative stay were recorded. Results Five consecutive patients (4 females) underwent RDP between December 2011 and July 2012. Mean age was 55 years (range 34-77 years); mean tumor size was 35 mm (range 10-53 mm). Two spleen preserving RDP were performed. Mean operative time was 275 min (range 210-450 min); robotic procedure time was 158 min (range 60-285 min). One patient was converted to open procedure because of uncontrolled splenic artery bleeding during pancreatic gland transection. Two patients experienced blood loss requiring intraoperative transfusion. One patient was re-operated on because of intra-abdominal fluid collection and partial splenic infarction developed on 5 post-operative day. Two POPF developed (1 grade A and 1 grade B). Mean hospital stay was 13.5 days (range 10-20 days). Histological specimens were consisted of 2 neuroendocrine tumors and 3 mucinous cystadenomas. Two asymptomatic intra-abdominal fluid collections were followed with periodic US investigation and up to now do not necessitate of any active treatment (follow up ended on July 2012). Conclusion A hybrid approach was initially preferred to perform RDP taking origin from more than a decade of experience in laparoscopic distal pancreatectomy. On the basis of overall results obtained we have decided to adopt a fully robotic technique to perform RDP.