

00375 Total Extra-peritoneal (TEP) Approach to Robotic-assisted Laparoscopic Radical Prostatectomy (RARP) Allows for Post-operative Ileus-free Early Hospital Discharges for Selected Low- to Intermediate-risk Patients

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Aims: The extraperitoneal approach offers the advantages of improved dexterity and visualization of the robot, while avoiding the abdominal cavity and bowel-related morbidity. We explore the feasibility and safety of TEP approach for RARP.

Methodology: Between May 2016 and April 2017, 30 consecutive patients that met inclusion criteria (BMI<30, D'Amico low to intermediate-risk prostate cancer, prostate volume <60 ml, no previous laparotomy) were recruited prospectively. The extra-peritoneal space was created posterior to the subumbilical rectus sheath in the preperitoneal fat plane with a balloon dissector. A 5-6 ports technique was used with reduced Trendelenburg angle. Patient demographics, characteristics, peri- and post-operative short term outcomes were analysed.

Result: The median age was 64 (range 57-74) years and mean prostate volume was 46.3±17.0 ml (range 22-75). The mean PSA was 7.0±3.2 ug/L. The mean BMI was 24.0±2.5 kg/m². Excluding 2 cases of intra-peritoneal conversion due to dense peritoneal adhesions post-laparoscopic cholecystectomy and open appendectomy, 28 patients underwent extra-peritoneal approach successfully. The mean setup time was 27.2±12.0 mins and mean total operative time was 215.4±43.5 mins. The mean Trendelenburg degree was 16.8±5.6. Mean estimated blood loss was 119.0±64.9 cc. There was a small peritoneal breach in a patient with previous open appendectomy and another with previous open hernia repair. Four and 11 patients had standard pelvic lymph node and nerve-sparing dissections respectively.

Post-operatively no patients had ileus or significant Clavien-Dindo complications. Twenty-four (85.7%) patients passed flatus and had diet on post-operative day (POD) 1. Sixteen (57.1%) patients were discharged within 24 hours and the rest on POD 2. Majority (85.8%) of patients had complete resection. At a mean of 126±85.7 days, 26 patients achieved undetectable nadir PSA (<0.03ug/L). Overall continence rate was 89.3% at 3 months.

Conclusion: TEP resection of prostate, an extra-peritoneal organ, in selected patients is safe and enables ileus-free early discharges.