



AB016. 220. Robotic versus laparoscopic Anderson-Hynes pyeloplasty in adults: a single surgeon experience

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Background: The increasing availability of robotic devices has led to an increase in their use for procedures such as pyeloplasty, which have been conventionally performed laparoscopically or through open surgery. We perform both laparoscopic and robotic-assisted pyeloplasty routinely and have compared these techniques.

Methods: A chart review was performed of all cases of robot-assisted laparoscopic pyeloplasty (RALP) and conventional laparoscopic pyeloplasty (CLP) performed by a single surgeon, from September 2006 to July 2010. A lateral transperitoneal approach was used in all cases. All anastomoses were stented antegrade. A diuretic renogram was obtained in all patients between 6 to 12 weeks after

stent removal. Success was defined as a resolution of symptoms with non-obstructive outflow on the renogram.

Results: Thirty patients underwent 31 laparoscopic pyeloplasties (20 RALPs and 11 CLPs), with one patient undergoing bilateral simultaneous robotic procedures. The robotic procedures were superior in terms of shorter operating time by 20 minutes on an average. Furthermore, 35% of the robotic procedures were performed in under 90 minutes, while the minimum time taken for laparoscopy was 110 minutes. All procedures in both cohorts were successful with no complications in either group. The surgeon recorded subjective ergonomic benefits with the use of the robot.

Conclusions: Robotic assistance helps decrease the operative time for laparoscopic pyeloplasty. It seems ergonomically superior for the surgeon, allowing multiple procedures in the same list. These may be important benefits in busy centers.

Keywords: Robotic surgery; laparoscopy; pyeloplasty

doi: 10.21037/map.2018.AB016

Cite this abstract as: Norton S, David S, Nabi N, Rustoum AK, Browne E, Akram M, Nama G, Giri SK. Robotic versus laparoscopic Anderson-Hynes pyeloplasty in adults: a single surgeon experience. *Mesentery Peritoneum* 2018;2:AB016. doi: 10.21037/map.2018.AB016