

Laparoscopic Surgery for Umbilical Single Port: Initial Experience

Introduction and Objective: Since the first laparoscopic nephrectomy by Clayman in 1991, minimally invasive urologic surgery has gained significant momentum. Although laparoscopy is less traumatic than open surgery, it still requires multiple incisions. Currently they are developing multiple alternatives to traditional laparoscopy, with an umbilical single port the most exploited to date, since it allows you to perform surgery with minimal incisions, technically demanding and no visible scars. We present our initial experience in laparoscopic surgery service for single umbilical port.

Materials and Methods: We reviewed the medical records and imaging of 16 patients undergoing laparoscopic surgery with Triport™ between May 2009 and March 2011. We assessed the key figures for the patient, injury and surgery. Of the 16 patients, 9 (56.3%) were men and 7 (43.8%) were women. The mean age was 47,81 years (20-79 years). Mean follow up was 10,9 months (1-22 months).

Results: Were performed: 7 adrenalectomy, 4 total nephrectomy, 3 partial nephrectomy, 1 dismembered ureteropieloplasty and 1 excision of a pelvic tumor. The average time of surgery was 119,3 min (30-255 min), with an average of 102,8 min (30-255 min) in the adrenalectomy, from 151,0 min (95- 204 min) and total nephrectomy in of 126,6min. There were 120-140 min used in the partial nephrectomy. The average bleeding was 187,5 ml(0-600 ml), with an average of 85,71 ml (0-500 ml) in the adrenalectomy, of 262,5ml (0-500ml), total nephrectomy in 400,0 ml and (300-600 ml) during partial nephrectomy. It was necessary to introduce two 5mm ports, one in the finalization of the anastomosis to ureteropieloplasty and other for aspiration in partial nephrectomy. Partial nephrectomy was performed in the vascular clamp, with direct puncture with an average time of 25,6 min of clamp (21-28 min). One patient underwent transfusion of blood. The average length of stay was 1,69 days (1-4 days).

Conclusion: Laparoscopic surgery for umbilical single port, has some advantages over traditional laparoscopy, being applicable in almost all types of renal and adrenal surgery. It presents the most technically demanding, with increased difficulties in the conflict area between the instruments and the lack of triangulation, difficulties that may in part be mitigated by the use of angled instruments. The big advantage is the absence of scarring and shorter hospital stay.