Robotic compared to laparoscopic surgery in gynecological cancer: can we reduce the risk of bowel anastomotic leakage in the bowel surgery based on 100 cases of modified ICG technique used in deep infiltrated endometriosis?

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Introduction/Background Anastomotic leakage is one of most serious complications of intestinal surgery. Our task is to compare two laparoscopic techniques in different risk factors of bowel anastomosis leakage in DIE patients.

Methodology We divided 138 patients into 2 groups: Group A: 30 patients with classical ‘surgical’ technique of bowel resection. Group B: 100 patients who had laparoscopic ‘tailored’ bowel segmental resection with ICG vascular visualization and fibrin sealant use. Both groups were divided into subgroups due to complexity of the surgery. Different risk factors of anastomotic leakage were taken into analysis.

Results (1) The occurrence of bowel anastomosis leakage was higher in group A 3/30 3/30 (10%) than in group B 2/100 (2%) (2) Low localisation of the tumor (below 60 mm) – 4 cases in group A was connected with 1 leakage (25%), in group B – 10 cases, - 1 – leakage (10%) (3) Complexity of the surgery and anastomotic leakage – group A1 – only bowel – 12,5% (2/16) of leakage, group A2 – bowel and uterus - 7,2% (1/14), group B1 – only bowel- no leakage, group B2 – bowel and uterus- 2,7% leakage (1/36), group B3 – bowel and urinary tract organ – no leakage (0/5), group B4 – bowel with urinary tract organ and uterus – 5,2% (1/19) of leakage, group B5 – multiple segments of bowel with uterus and urinary tract organs – no leakage.

Conclusion (1) The ‘tailored’ bowel resection, with ICG visualization and usage of fibrine material reduce the number of anastomosis leakage to 2% (2) Complexity of the surgery has the impact on the risk of leakage. (3) The low localisation of the endometriotic changes has the impact on higher risk of anastomosis leakage, but using modified laparoscopic technique reduces it compared with classical one.

Robotic compared to laparoscopic ergonomics in patients with gynecological cancer

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Introduction/Background Robotic surgery has advantages over laparoscopic surgery, including 3D vision, greater precision, articulated instruments, improvement of the surgical field and ergonomics. The aim of this study is to evaluate if robotic surgery improves ergonomic in different surgical procedures compared to laparoscopic surgery in gynecological cancer.

Methodology Comparative study between robotic and laparoscopic surgery carried out in a tertiary hospital from 2007 to 2019. Data from a survey completed by surgeons after each surgical procedure for gynecological cancer were analyzed. Patients operated were diagnosed of endometrial, ovarian or cervical carcinoma. The survey evaluated ergonomics parameters with scores between 1 and 10 in both surgical approaches in different surgical procedures. Surgical procedures were grouped according technical difficulty: hysterectomy with double adnexectomy, hysterectomy with lymphadenectomy (pelvic or pelvic and para-aortic), radical hysterectomy and para-aortic lymphadenectomy. Basic demographic characteristíc and ergonomics were compared between both approaches.

Results A total of 534 surveys were collected, 347 in the robotic group and 187 in conventional laparoscopic group. Patients in the robotic surgery group had a higher BMI, greater morbidity and therefore higher ASA scores. No differences were observed between robotic and laparoscopic surgery groups regarding the question related to the degree of difficulty of the surgery perceived by the surgeon (p=0.151). The group of robotic surgery obtained lower scores on questions related to fatigue (Robotic 3.2 vs Laparoscopic 5.5), comfort (Robotic 9.1 vs Laparoscopic 6.4), and limb (Robotic 1.3 vs Laparoscopic 4.4) and back pain (Robotic 1.8 vs Laparoscopic 4.3). Statistically significant differences were observed in questions related to the surgeon’s fatigue (p=0.000), the degree of comfort (p=0.000) and limb or back pain (p=0.000).

Conclusion Robotic surgery improves the ergonomics of surgery for gynecological cancer patients in different surgical procedures with several degrees of difficulty.

Covering all angles; a case report demonstrating why lateral port entry must be perpendicular

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Introduction/Background Over 14 million minimal access surgeries (MAS) are performed globally each year, with its use continually rising. MAS are often preferred due to reduced length of hospital stay, reduced infection rates and minimal scarring. Although rare, postoperative port site bowel herniation can occur and has serious consequences. The Royal College of Obstetricians and Gynaecologists guidance recommends perpendicular port entry and rectus sheath closure for any non-midline port >7 mm.