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TREATMENT OF VAGINAL VAULT PROLAPSE: A COMPARISON BETWEEN LAPAROSCOPIC SACROCOLPOPEXY VERSUS ROBOTIC ASSISTED LAPAROSCOPIC SACROCOLPOPEXY

Hypothesis / aims of study
To compare the perioperative and short-term outcome between laparoscopic sacrocolpopexy versus robotic assisted laparoscopic sacrocolpoexy for treatment of vaginal vault prolapse in a teaching hospital in Hong Kong.

Study design, materials and methods
This is a retrospective study. The records of all patients who underwent laparoscopic sacrocolpopexy or robotic assisted laparoscopic sacrocolpopexy for vaginal vault prolapse in a teaching hospital in Hong Kong between March 2005 to February 2012 were reviewed. Their baseline characteristics, symptoms, perioperative outcome such as operative time, intraoperative blood loss, complications, and short -term outcome were compared. After the operation, they were followed at 4 months after operation and then annually. Pelvic Organ Prolapse Quantification (POPQ) assessment was done pre- and post- operatively for comparison. Besides, patients' satisfaction were also assessed at followed-up and regarded as satisfied if they reported 'better' outcome.

Results
There was a total of 50 patients, of which 31 underwent laparoscopic sacrocolpopexy (LS) and 19 underwent laparoscopic sacrocolpopexy with robotic assistance (RALS) in the above mentioned study period. They had similar baseline characteristics with median parity 3 and more than 50% of them had previous pelvic floor repair. Patients in both groups had similar prolapse symptoms of mainly dragging sensation and few had co-existing urinary symptoms.

The mean operative time was 202.7±53.3 minutes. The operative time for RALS was slightly longer (220.7±46.8 minutes) when compared to LS (191.8±54.8 minutes) although it was not statistically significant (P=0.06). The mean blood loss in the LS group was 154.8ml and 124.7ml in the RALS group (P=0.23). The RALS group required a longer mean hospital stay (7.5 days vs 3.6 days, P=0.02), and had more intra-operative and post-operative complications, such as bladder injury, port site hernia and post-operative deep vein thrombosis than LS group (26.3% vs 12.9%, P=0.27).

Only 48 cases were followed up as 2 cases were operated recently. The mean follow up period was 28.4±22.3 months (LS 33.2 months vs RALS 20.9 months, P=0.04). In both groups, there were comparable significant improvement in the POPQ assessment for all three compartments of the vagina while the length of the vagina was well preserved. The objective cure (defined as no recurrence of prolapse at any compartment stage II or above) rate was 87.5% (LS 86.2% vs RALS 89.5%, P=1.0), and 91.7% of patients (LS 89.7% vs RALS 94.7%, P=1.0) were satisfied with the operative outcome. Overall, there were 6 (12.5%) patients with recurrence of stage II prolapse (LS 13.8% vs RALS 10.5%, P=1.0).

Interpretation of results
Laparoscopic sacrocolpopexy required a shorter operative time and a shorter hospital stay with a non-significant increase in blood loss. Laparoscopic sacrocolpopexy and robotic-assisted laparoscopic sacrocolpopexy had similar anatomical outcome and patient's satisfaction.

Concluding message
Both laparoscopic sacrocolpopexy and robotic assisted laparoscopic sacrocolpopexy showed comparable outcome for women with vaginal vault prolapse. Laparoscopic sacrocolpopexy should be preferred.

Disclosures
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