A prospective randomised study of open versus robotic assisted para aortic lymph node dissection in high risk endometrial carcinoma-A novel technique

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Introduction: To evaluate the technical feasibility and safety of robotic assisted para aortic lymphadenectomy in comparison with open surgery in terms of adequacy of staging, blood loss, lymph node harvest, hospital stay and complications.

Material & Methods: A randomized prospective study was performed which included 180 patients diagnosed with endometrial carcinoma who were divided into two groups one open and other robotic. All patients underwent type I pan hysterectomy + B/L pelvic lymphadenectomy. The high risk patients (FIGO grade 3, Tumor > 2 cm, pelvic node positive and >50% myoinvasion) were taken up for para aortic lymphadenectomy. The para-aortic node dissection was performed upto renal veins. In the Da Vinci Robotic arm, a novel single docking technique using 30 degree camera with hot shears and bipolar fenestrated grasper was used. The split and roll technique was used to perform the pre-caval and pre-aortic lymphadenectomy.

Results: Out of 180 patients included in study, 113 had high risk endometrial cancer (open arm 58 and robotic arm 55). The average blood loss in open arm was 134.6 ml vs. 41.2 ml in robotic arm. In open surgery, on average 11.6 nodes were harvested when compared to 17.5 nodes in robotic arm. Duration of hospital stay for open group was 5.54 days vs. 1.94 days for robotic arm. None of the patients in either arm had any major intra-operative or post-operative complications. 23 patients in the open arm had prolonged ileus while 4 patients had ileus in robotic arm. 7 patients in open arm developed wound infection.

Conclusion: This study showed results which indicate that robotic assisted para-aortic lymphadenectomy had equal oncologic outcome as compared to open technique. Minimal blood loss and less pain helped in shorter hospital stay and early return to normal activities. Robotic assisted surgery had better clinical outcome and patient satisfaction when compared to open technique.

Biography
Somashekhar S P, MS, MCh (Onco), FRCS, Edinburgh, is the Chairman & HOD of Surgical Oncology, Manipal Health Enterprise. He did his graduation in the year 1994, MS and MCh oncosurgery in the year 2000. He did his FRCS in Edinburgh. He is the Editor in Chief of Indian Journal of Gynec Oncology, Treasurer Association of Gynecological Oncology India. He is the Consultant Surgical & Gynec. Onco & Robotic Surgeon at Manipal Comprehensive Cancer Center, India. He had several national and international publication and has authored several text books in gynec oncology.

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