trachelectomy with preservation of the entire uterus, the majority of the vagina, and negative surgical margins were obtained. She recovered well and is currently undergoing chemotherapy.

**Conclusions** To our knowledge, this is the youngest patient having undergone an abdominal trachelectomy. This approach appears to be safe in the pediatric population.

**IGCS19-0158**

**Identification and Correction of Bowel Injuries As a Result of Perforation With a Uterine Manipulator, Using the Robotic Platform**

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10.1136/ijgc-2019-IGCS.113

**Objectives** To demonstrate use of the robotic platform to identify and repair intraoperative bowel injuries secondary to perforation with a uterine manipulator.

**Methods** We present video footage and still photographs of bowel injuries after perforation with a uterine manipulator, in a patient with grade 2 endometrial cancer.

**Results** We demonstrate the identification of both large and small bowel defects after perforation with a uterine manipulator, and their correction using the robotic platform. Emphasis is placed on key components of the procedure, including correctly identifying anatomy, avoiding immediate removal of the manipulator so as to clearly identify the extent of the defect, and meticulous adhesiolysis and suturing technique. A through-and-through defect in the sigmoid colon is identified, and both sides are repaired in two layers using 3–0 PDS suture in a running fashion. The first layer is run, incorporating full thickness bites to reapproximate the bowel mucosa. A second, imbricating layer is placed with interrupted suture to reinforce this closure. Another defect is identified in the small bowel, and repaired similarly; however, both the first and second layers are placed in an interrupted fashion. Both defects are closed to avoid narrowing the lumen of the bowel. The bowel is then run in its entirety to identify any other defects.

**Conclusions** We demonstrate that with prompt identification, gradual removal of the manipulator, and careful dissection, correction of bowel injury after perforation with a uterine manipulator can be achieved using the robotic platform, without obligatory conversion to laparotomy.

**IGCS19-0165**

**Surgical Tips and Modifications of Technique to Improve Problems Encountered During the Learning Curve for Roboticinguinofemoral Groin Node Dissection for Early Stage Vulvar Cancer**

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10.1136/ijgc-2019-IGCS.114

**Objectives** Techniques to improve the initial problems encountered during robotic groin node dissection.

**Methods** The problems encountered in the initial five robotic groin node dissections with regards to anatomical muscle miss and en bloc removal of superficial and deep groin nodes were addressed by changing surgical techniques during node dissection.

**Results** Improved techniques led to standardization of the procedure.

**Conclusions** Issues and tips for Improvement in surgical techniques especially in novel areas like robotics surgery is addressed.

**E-Poster Viewings**

19–21 September

Basic – Translational science

**IGCS19-0305**

**The Invasiveness Role of PGRMC1 in Cervical Cancer Cell**

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10.1136/ijgc-2019-IGCS.115

**Objectives** Cervical cancer remains a severe disease among the female population, although the mortality rate of cervical cancer is declined due to the widespread applications of Pap smear tests and vaccination. Once patients were diagnosed with metastatic cervical cancer, it usually came with poor prognosis. Therefore, it is important to elucidate the molecular mechanisms underlying cervical cancer invasion.

**Methods** In this study, we used 2D-DIGE, MALDI-TOF/TOF MS, and small interfering RNA to discover the potential biomarkers in a pair of cervical cell lines HeLa and its invasive partner HeLa-I5. The marker expression in metastatic cervical cell line Ca Ski and ME-180 and in cervical tissue microarray were further examined.

**Results** There were 68 proteins differentially expressed between the proteomic profiles of HeLa and HeLa-I5. Functional ontology annotated these proteins are mainly in groups of glycolysis, cytoskeleton, protein folding, and redox regulation. In which, one of the potential candidates called progesterone receptor membrane component 1 (PGRMC1) was highly expressed in HeLa-I5. By using RNAi to knockdown PGRMC1 expression, the abilities for cell proliferation, transwell migration, and invasion were significantly reduced in HeLa-I5, Ca Ski, and ME-180. Further, higher PGRMC1 expression in grade 3 cervical cancer tissues was observed.

**Conclusions** PGRMC1 plays an essential role in mediating cell metastasis as well as progression in cervical cancer cells and might be a potential target for the treatment of cervical cancer. The clinical application of PGRMC1 needs to be further evaluated.