

Conclusions Over one third of Blacks aged 65 and older never underwent cervical cancer screening, and the rate of non-compliant screening is increasing. With the highest incidence of cervical cancer in Blacks seen in this age group, the role of individualized cervical cancer screening guidelines should be considered.

EPV057/#294

DEVELOPMENT OF A LARGE SWINE MODEL FOR ANATOMICAL AND FUNCTIONAL ASSESSMENT OF THE FEMALE PELVIC AUTONOMIC NERVES IN WOMEN

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10.1136/ijgc-2021-IGCS.125

Objectives The anatomy and function of the pelvic autonomic nerves are not yet fully understood despite the development of nerve-sparing radical surgery for cervical cancer. Thus, we developed a female animal model for anatomical and functional assessment of the pelvic autonomic nerves in women.

Methods We used eight female swine models weighing about 30 kg each and assessed the anatomy of their pelvic autonomic nerves. We also evaluated the nerves' function by measuring the pressure of the bladder, vagina, and rectum after electrically stimulating the parasympathetic nerves with or without resection of the sympathetic nerves.

Results Three swine models were dissected for anatomical assessment and showed similar patterns. Although there were some anatomic variations, most showed identical pathways of the sympathetic and parasympathetic nerves that eventually led to the formation of superior and inferior hypogastric nerves respectively, as well as the individual branches of the pelvic plexus. The remaining eight models were used for functional assessment. Before resection of the sympathetic nerves, stimulation of parasympathetic nerves showed increased interval to contraction and duration of contraction but decreased maximal contractile pressure and frequency in the pelvic organs, while results revealed the contrary after resection of the sympathetic nerves.

Conclusions We were able to identify the anatomy and function of pelvic autonomic nerves in swine models and found them to be similar to those of women. Further studies should be done to compare the two in order to master the knowledge of female pelvic autonomic nerves.

EPV058/#315

ASSOCIATION OF HLA-G POLYMORPHISMS WITH HIGH-RISK HPV+ CERVICAL PATHOLOGIES SUSCEPTIBILITY

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10.1136/ijgc-2021-IGCS.126

Objectives HLA-G gene polymorphisms have been linked to many cancers particularly to cervical squamous cell carcinoma (CSCC). In this meta-analysis, we studied the association of

HLA-G +3142 C/G and 14bp Insertion/deletion (Ins/Del) polymorphisms with cervical pathologies susceptibility.

Methods A comprehensive systematic literature search in Medline, Pubmed, Cochrane, Embase, and Web of Science databases was performed to look up relevant studies. We identified four studies for HLA-G +3142 C/G (299 patients with HPV+ high-risk cervical pathologies and 870 healthy controls (HC)); and six studies for HLA-G14bp Ins/Del (693 patients with HPV+ high-risk cervical pathologies and 2536 HC). The association was studied through the calculation of the odds ratio (OR) and the corresponding 95% confidence interval (CI).

Results HLA-G +3142 C/G polymorphism and HLA-G 14 bp Ins/Del significantly enhanced the risk for HPV+ cervical pathologies only in Asians conversely to overall population and Caucasians. HLA-G +3142 C/G enhanced the HPV+ high-risk cervical pathologies risk under allelic C vs. G model (OR=1.321, 95CI%=1.035–1.686, p=0.025) and under the genotypic model CC vs. GG+GC (OR=2.028, 95CI%=1.337–3.075, p=0.001). HLA-G 14bp Ins/Del increased also the HPV+ cervical pathologies risk only under the genetic model (InsIns vs. DelDel+InsDel) (OR=1.910, 95%CI=1.151–3.171, p=0.012) in Asians.

Conclusions Our preliminary meta-analysis showed a significant association of HLA-G +3142 C/G polymorphism and HLA-G 14bp Ins/Del with HPV+ high-risk cervical pathologies susceptibility in Asians. Further studies still needed in other ethnicities to clearly establish our findings.

EPV059/#324

INTERACTIVE FLASHCARDS IMPROVE HUMAN PAPILLOMAVIRUS VACCINE KNOWLEDGE AND WILLINGNESS TO RECOMMEND AMONG NURSES

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10.1136/ijgc-2021-IGCS.127

Objectives The Human Papillomavirus (HPV) vaccine prevents cervical and other HPV-associated cancers by preventing infection with oncogenic HPV subtypes. In the United States, only 57% of women and 53% of men in the recommended age groups have received all recommended doses. Our objective was to create a 7-minute interactive learning platform to improve knowledge of HPV and to assess willingness to recommend the vaccine among nurses.

Methods Pre- and post-intervention questions on HPV-associated cancers, vaccine eligible groups, dosing schedules, adverse events, and willingness to recommend the vaccine were posed. The intervention consisted of 10 flashcards in a question-answer format with up-to-date information and responses to frequently asked questions (e.g., Who should receive the vaccine and how is it given? Some parents may worry that their child will think that getting this vaccine makes it OK to have sex, how do I answer?).

Results All 113 participants (40.9±11.6 years-old, 58% with >10 years in practice) identified cervical cancer as an HPV-associated cancer. Post-intervention, there was improvement in recognition of other HPV-associated cancers (70% to 94%) and knowledge of dosing schedule (46% to 93%). 7% versus 1.7% of participants agreed with unproven adverse events pre- and post-intervention. 94% of participants strongly agreed that they would recommend the HPV vaccine to patients and

87% strongly agreed that the intervention improved their knowledge.

Conclusions While nurses are willing to recommend the vaccine, there are knowledge gaps in HPV-associated cancers, dosing schedules, and adverse events. An interactive flashcard educational intervention is effective in improving HPV vaccine knowledge among nurses.

EPV060/#330 UTERINE TRANSPOSITION IN TREATMENT PATIENTS WITH INVASIVE CERVICAL CANCER

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10.1136/ijgc-2021-IGCS.128

Objectives Radical trachelectomy is the main surgical procedure in the treatment of invasive cervical cancer for patients who want to preserve fertility. Radical trachelectomy is not possible for some patients due to a large size of tumor which spreads onto the vagina or parametric, regional lymph nodes metastasis. These patients require radiation therapy, which excludes the possibility of independent pregnancy.

Methods We report 5 patients having stage Ib2-IIb cervical cancer. The average age is 29 years. At the first step of treatment, 2–3 courses of chemotherapy were carried out. The second step included a radical trachelectomy (Piver type III) with uterus transposition. The uterus blood supply was ensured by IP-ligaments, which are protruded approximately 15cm on each side. Due to this method, the uterus and ovary mobility was achieved. It made possible to paraumbilically transposition the uterus so that the conditions for performing radiotherapy were created. The third step marked a combined radiotherapy which was carried out according to the prescribed standards. In three months a uterine reposition with utero-vaginal anastomosis was conducted.

Results The patients have been under the median observation for 16,2 months so far. No one has any signs of recurrence. All our patients' menses circles saved.

Conclusions The uterine transposition in treatment patients with stage Ib2-IIb cervical cancer ensures preservation of the uterus and ovarian function. This operation makes it feasible to provide a combined radiotherapy according to the prescribed standards and, thus, ensures, fertility preservation. Undoubtedly, that is very seminal to continue carrying out research in this field.

EPV061/#345 THE USE OF ROUTINE CYTOLOGY FOLLOWING CERVICAL CANCER TREATMENT: A CALL TO DISCONTINUE THE SURVEILLANCE PAP SMEAR

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10.1136/ijgc-2021-IGCS.129

Objectives Despite limited evidence of benefit in using pap smears for surveillance of asymptomatic cervical cancer recurrence, gynecologic oncologists continue to perform this test annually. The objective of the study was to examine the utility of routine cervical cytology following cervical cancer treatment.

Methods An IRB-approved retrospective study was performed at a tertiary care center between 2004–2020. A total of 581 cervical cancer patients were identified, of which 211 were excluded due to loss of follow up or treatment at an outside facility. Manual data abstraction was performed.

Results of 370 patients in the cohort, 237/370 were identified in the surveillance period. 82/237 (34.5%) had at least one abnormal pap smear. 25/82(30.5%) underwent biopsy with 88% of biopsies negative for malignancy. 177/237 (74.7%) women underwent radiation therapy: 67/177 (39.8%) had abnormal surveillance pap smears, with 8/177 (4.5%) subsequently diagnosed with local recurrence. Local recurrence was identified in 18/237 (7.6%) patients: 16/18 (88.9%) were symptomatic. of the symptomatic patients, 6/18 (33.3%) had normal surveillance cytology. Only one case of local, asymptomatic cervical cancer recurrence was detected on pap smear alone.

Conclusions Routine pap smears in surveillance of cervical cancer recurrence has limited clinical value. Consideration should be given to removing routine cytology from the surveillance recommendations.

EPV062/#354 COMPARISON OF OUTCOMES BETWEEN ABDOMINAL, MINIMALLY INVASIVE AND COMBINED VAGINAL- LAPAROSCOPIC HYSTERECTOMY IN PATIENTS WITH STAGE IA1/ IA2 CERVICAL CANCER: 4C (CANADIAN CERVICAL CANCER COLLABORATIVE) STUDY

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10.1136/ijgc-2021-IGCS.130

Objectives Although minimally invasive(MIS) radical hysterectomy has been associated with worse survival compared to abdominal hysterectomy(AH), only 8% of patients in the LACC trial had microinvasive disease(Stage IA1/IA2). We sought to determine differences in outcome among patients undergoing MIS, AH or combined vaginal-laparoscopic hysterectomy(CVLH) for microinvasive cervical cancer.

Methods A retrospective cohort study of all patients undergoing hysterectomy for FIGO 2018, microinvasive cervical cancer across 10 Canadian centers between 2007 and 2019 was performed. Recurrence free survival(RFS) was estimated using Kaplan Meier Survival analysis. Chi-square and log-rank tests were used to compare outcomes.

Results 430 patients with microinvasive cervical cancer were included; 61.9% Stage IA1 and 38.1% IA2. The median age was 44 years(range 24–81). The most frequent histology was