CIRCUITING HPV CELL-FREE DNA IN CERVICAL CANCER

Suzana Mittelstadt, Christopher Schroeder, Olga Kelemen, Tobias Engler, Jakob Adnart, Axel Gschwind, Andre Koch, Sarah Elisabeth Wurz, Ernst Oberlechner, Saadja Hoffmann, Jürgen Andrea, Felix Nits, Bernhard Krämer, Inna Bonzheim, Annette Staelber, Frank Stübenrauch, Thomas Illmer, Stephan Ossowski, Stefan Kommiss.

Introduction/Background Human papillomavirus (HPV) related cervical cancer is the fourth most frequent cancer in women worldwide. Currently patient follow-up and therapy monitoring is solely based on clinical examination and cross-sectional imaging. Liquid biopsies for cell-free circulating tumor DNA in cancer are a novel biomarker to detect treatment response, residual disease, and relapse. The aim of this study was to investigate the potential use of cell-free circulating HPV-DNA (cHPV-DNA) in plasma samples of patients with cervical cancer.

Methodology In this proof-of-concept study cHPV-DNA levels were measured using a highly sensitive Next-Generation-Sequencing-based approach targeting a panel of 13 high-risk HPV-types. For nine patients cHPV-DNA sequencing was compared to HPV testing in corresponding paraffin embedded tumor sample. Sequential plasma samples were taken from four patients receiving primary chemoradiation.

Results A total of 70 blood samples was collected from n=35 patients. cHPV-DNA was successfully detected in 25/35 (71%) patients; of them, 8 patients had some surgical pretreatment when the sample was collected. A significant correlation between tumor burden and cHPV-DNA detection was observed: while cHPV-DNA was detectable in most patients (20/22) with locally advanced or metastatic disease (FIGO IB3 – IVA), detection was successful in only 5/13 patients with early-stage disease (FIGO IA – IB2), p<0.005. When pretreated patients were excluded, the detectable rate was 100% (18/18) for advanced stages and 55% (5/9) for early stages.

HPV-types detected in plasma samples matched results from tumor tissue HPV testing. Sequential sampling for patients under primary chemoradiation showed a dynamic decrease of cHPV-DNA levels corresponding treatment response in all patients.

Conclusion In this proof-of-concept study we were able to detect cHPV-DNA in plasma samples of patients with primary and recurrent cervical cancer. Our findings may hold potential to develop a powerful and easily accessible tool in cervical cancer management.

RETROPERITONEAL PARAORTIC LYMPH NODE STAGING IN ADVANCED CERVICAL CANCER: TUNISIAN EXPERIENCE


Introduction/Background Locally advanced cervical cancer is treated with Radio-chemotherapy and brachytherapy. Therefore; a pre-treatment para-aortic lymph node assessment is important for disease staging and therapeutic implications. Our study aimed to analyze the Tunisian experience of laparoscopic lymphadenectomy for patients with locally advanced cervical cancer.

Methodology We reported 29 patients with locally advanced cervical cancer who underwent laparoscopic lymphadenectomy at our Institute between 2016 and 2022.

Results The mean age was 44 years. Patients were staged IIIC1 in 48.2%, IIb,5% were IIB, 6.9% were IVA, 6.9% IB1, 6.9% IB3 and 2.8% were IIA2. CT scan and MRI showed suspicious pelvic lymph nodes in 65.5% and suspicious para-aortic lymph nodes in 17.9% of cases. All patients underwent para-aortic lymph node dissection after a mean time of 6 days. Our technique was 68.9% Transperitoneal and 31.01% extraperitoneal. The mean time duration was 2.37Hours. There was no peri-operative or postoperative complications. One patient had a blood transfusion The mean time of hospital stay was 2 days. Pathological examination found a mean number of 9 Nodes (range 2-22 removed lymph nodes).

There was 32.17% of invaded lymph nodes. sensitivity and specificity were respectively 100% and 83.3%, and VPP was 33.3%. All patients had radiochemotherapy for their cervical cancer.

Conclusion Pre-treatment laparoscopic staging surgery plays an important role in the treatment and the decision of the radiation field. Although imaging modalities are improving, the current gold standard for determining lymph node status is surgical sampling mainly in developing countries with difficult access to PET-CT.

IS LAPAROSCOPIC RADICAL HYSSTERTOMY SAFE IN CERVICAL CANCER WITH TUMOR SIZE ≤2 CM, EVEN IF PARAMETRIAL INVASION OR LYMPH NODE METASTASIS IS FOUND AFTER SURGERY?

Junwhan Kim, Seeyoon Lee, Se Ik Kim, Dong Hoon Suh, Yong Beom Kim, Jae-Weon Kim, Chel Hun Choi, Maria Lee. Department of Obstetrics and Gynecology, Seoul National University College of Medicine, Seoul, Korea, Republic of; Department of Obstetrics and Gynecology, Seoul National University Bundang Hospital, Seongnam, Korea, Republic of; Department of Obstetrics and Gynecology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

Conclusion In this proof-of-concept study we were able to detect cHPV-DNA in plasma samples of patients with primary and recurrent cervical cancer. Our findings may hold potential to develop a powerful and easily accessible tool in cervical cancer management.
**Introduction/Background** Previously, our research team suggested patients with 2009 FIGO stage IB1 cervical cancer with tumor size ≤2 cm on preoperative magnetic resonance imaging (MRI) were safe candidates as laparoscopic radical hysterectomy (RH) did not influence disease recurrence in this subgroup. We aimed to investigate whether laparoscopic RH is also feasible in parametrial-positive or node-positive, early cervical cancer with a small sized tumor.

**Methodology** From Cervical Cancer cohorts of three tertiary institutional hospitals, we identified patients with 2009 FIGO stage IB1 who received either open or laparoscopic Type C RH. Among them, those with cervical tumor ≤2 cm on pre-operative MRI and were adherent to the guidelines for adjuvant treatment were included. Patients’ clinicopathologic characteristics and survival outcomes were compared between the laparoscopic and open RH groups. Subgroup analyses were conducted according to the presence or absence of parametrial invasion (PMI) and lymph node metastasis (LNM).

**Results** In total, 498 patients were included: 299 and 199 for laparoscopic and open RH groups, respectively. After surgery, all study population was managed properly in terms of adjuvant treatment. After a median observation period of 59.4 months, the two groups showed similar progression-free survival (PFS; P=0.615) and overall survival (P=0.439). On pathologic examination, 16 (3.2%) and 49 (9.8%) had PMI and LNM, respectively, and 10 (2.0%) had both. In a subgroup of PMI, no difference in PFS was observed between the laparoscopic and open RH groups (P=0.893). In a subgroup of LNM, the two groups also showed similar PFS (P=0.169). Consistent results were also found in subgroups of non-PMI and non-LNM.

**Conclusion** Our study results demonstrate that laparoscopic RH might be safe in early cervical cancer with tumor size ≤2 cm, regardless of parametrial and nodal status, when adjuvant treatment is administered properly. Further large cohort studies are warranted to support our findings.

**2022-RA-1070-ESGO** COLOPOSCOPY CLINIC REFERRALS & CERVICAL CANCER DIAGNOSIS AT A TERTIARY GYNAE-ONCOLOGY CENTRE COVERING NORTH & EAST LONDON DURING THE COVID 19 PANDEMIC

Funmilola Abema Elusoji, Faiza Gaba. Gynaecological Oncology Surgery, Royal London Hospital, London, UK

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**Introduction/Background** Cervical cancer screening in England was one of five national screening programmes that were temporarily suspended during the COVID 19 pandemic due to the unprecedented demands on the medical services. Between April and August 2020, screening invitations were stopped going out and General practitioners discontinued face to face consultations which led to a fall in two-week wait referrals for suspected cancers. We reviewed the referrals to the colposcopy clinic and cervical cancer diagnosis at Royal London Hospital during the COVID 19 pandemic.

**Methodology** The study was a Retrospective cohort study of women diagnosed with cervical cancer between May 2020 and April 2021 at the Royal London Hospital, a tertiary Gynaec-oncology centre covering North and East London.

**Results** There were 1,500 colposcopy clinic referrals in this period which was a 37.3% reduction from the previous year. Of these, 14 cervical cancer cases were diagnosed which was an increase of 180% from the previous year (when 5 cases were diagnosed). See figure 1 below. Six out of the 14 new cases (42.8%) were late-stage presentation at least stage 2B of the International Federation of Gynaecology and Obstetrics (FIGO) 2018 staging of cervical cancer.

**Conclusion** The fall in colposcopy clinic referral can be explained by the disruptions from the COVID 19 pandemic as cervical screening invitations reduced during this time. However, the accompanying surge in cervical cancer diagnosis was unexpected. Further research is needed to compare with data from other gynaecology oncology centres and the Cancer research UK for the period of the COVID 19 pandemic when this is available.

**2022-RA-1071-ESGO** PRIMARY TREATMENT AND PROGNOSTIC FACTORS OF NEUROENDOCRINE CARCINOMA OF THE UTERINE CERVIX

Seoyoon Lee, Se Ik Kim, Hyun ji Lim, Junhwan Kim, Maria Lee, Jae Won Kim. Obstetrics and Gynecology, Seoul National University Hospital, Seoul, Korea, Republic of

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**Introduction/Background** Neuroendocrine carcinoma of the cervix (NECC) is a rare, aggressive histologic type of cervical cancer. Currently, there is no standardized therapy for NECC. This study aims to investigate prognostic factors for NECC and compare survival outcomes according to the treatment methods.

**Methodology** NECC patients who received primary treatment at our institution between 2000 and 2020 were retrospectively identified. We collected patients’ clinicopathologic and survival data, including age at diagnosis, histologic subtype, stage, immunohistochemical staining results, and detailed treatment methods. Multivariate analyses were conducted to identify prognostic factors for progression-free survival (PFS) and overall survival (OS).

**Results** In total of 47 NECC patients included, mean age at diagnosis was 46.9 years. The most common chief complaint was vaginal bleeding (61.7%). In relation to histologic