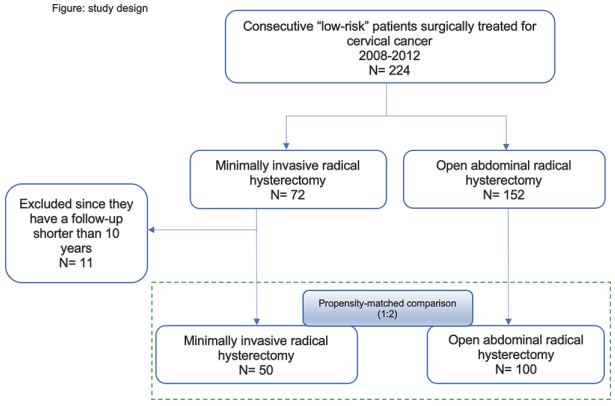
Introduction/Background Accumulating evidence suggested the detrimental effects of adopting minimally invasive surgery in the management of early-stage cervical cancer. However, long-term evidence on the role of minimally invasive radical hysterectomy in 'low-risk' patients exists.

Methodology This is multi-institutional retrospective study comparing minimally invasive and open radical hysterectomy in low-risk early-stage cervical cancer patients. A propensity-score matching algorithm (1:2) was used to allocate patients into the study groups. Kaplan-Meir model was used to estimate 10-year progression-free and overall survival.

Results Charts of 224 'low-risk' patients were retrieved. Overall, 50 patients undergoing radical hysterectomy were matched with 100 patients undergoing open radical hysterectomy. Minimally invasive radical hysterectomy was associated with a longer median operative time (224 (range, 100–310) vs. 184 (range, 150240) minutes; p<0.001), lower estimated blood loss (10 (10–100) vs. 200 (100–1000) ml, p<0.001), and shorter length of hospital stay (3.8 (3–6) vs. 5.1 (4–12); p<0.001). Surgical approach did not influence the risk of having intra-operative (4% vs. 1%; p=0.257) and 90-day severe (grade 3+) postoperative complication rates (4% vs. 8%; p=0.497). Ten-year disease-free survival was similar between groups (94% vs. 95%; p=0.812; HR:1.195;

95%CI:0.275, 5.18). Ten-year overall survival was similar between groups (98% vs. 96%; p=0.995; HR:0.994; 95% CI:0.182, 5.424).



Abstract #427 Figure 1 Study design

Conclusion Our study appears to support emerging evidence suggesting that, for low-risk patients, laparoscopic radical hysterectomy does not result in worse 10-year outcomes compared to the open approach. However, further research is needed and open abdominal radical hysterectomy remains the standard treatment for cervical cancer patients.

Disclosures None.

#433 IMPACT OF MENOPAUSAL STATUS ON CERVICAL DYSPLASIAS AND CERVICAL CANCERS

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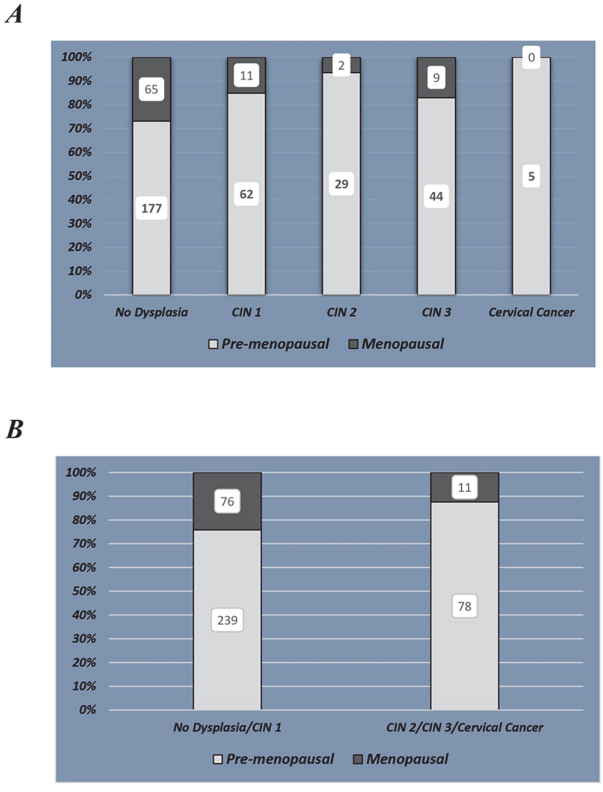
Introduction/Background It is a matter of debate whether there are other factors that may affect the results of colposcopic biopsy independent of cytology and humanpapilloma virus (HPV) genotype results. Therefore, we evaluated the effect of age and reproductive status on clinical outcomes in patients who underwent colposcopy.

Methodology Patients who underwent colposcopic examination at department of Gynecological Oncology, between 2016 and 2020 were evaluated retrospectively. Patients with positive cervical cytology results or patients with unknown HPV type(s) were not considered. Only patients with HPV 16 positivity and normal smear results were evaluated. Patients who had previously undergone colposcopy or a diagnostic excisional procedure were excluded. Statistical analysis was performed using IBM SPSS for Windows, Version 25.0.

Results Of 404 patients, 317 (78.5%) were in the reproductive period and 87 (21.5%) were in the menopausal period. The mean age of reproductive-aged women was 38.4 ± 0.3, and the menopausal women was 54.7 ± 0.5. The incidence of biopsy-confirmed normal cervix, cervical intraepithelial neoplasia (CIN) 1, 2, 3 and cervical cancer were 242/404 (59.9%), 73/404 (18.1%), 31/404 (7.7%), 53/404 (13.1%), and 5/404 (1.2%), respectively (figure 1A). A significant statistical difference was found in the distribution between premenopausal and menopausal patients (p= 0.018). If we classify the biopsy results in 2 groups as CIN 1 and CIN 2+ (CIN 2 and more severe lesion or cancer); CIN 2+ was present in 78/239 (32.6%) of premenopausal patients and 11/76 (14.5%) of menopausal patients (p= 0.017, figure 1B). Cervical cancer in the menopausal period was not observed in our data.



Abstract #433 Figure 1 a: The distrubution of biopsy-confirmed normal cervix, cervical intraepithelial neoplasia (CIN) 1, 2, 3 and cervical cancer Figure 1b: The number of cervical intraepithelial neoplasia (CIN) 2+ lesions among pre menopausal and menopausal patients

Conclusion The rate of low-grade cervical dysplasia is higher in menopausal patients with HPV 16 positive and normal cervical cytology compared to reproductive-aged patients.
Disclosures The authors have no potetial conflict of interest to report.

#438 MOLECULAR ALTERATIONS PREDICTIVE OF OUTCOME IN EARLY STAGED CERVICAL CANCER : A TRANSLATIONAL INVESTIGATION FROM THE SENTICOL III TRIAL

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Introduction/Background Despite of a well managed surgery and good histological and clinical features, some patients relapse after the treatment of early stage cervical cancer. The comprehensive genetic and molecular characteristics of malignant cervical tumours were described by The Cancer Genome Atlas Research Network. However, the TCGA data only published sequencing results with few clinical and histological data. Yet, the literature remains scarce about genetic alterations and outcome correlation in early stage cervical cancer.

Our translational study use a pan-genomic approach to evaluate recurrent genetic alterations seen in early cervical cancer patients. We aim to evaluate the correlation between molecular findings and clinical outcome and to find new prognostic biomarkers in early cervical cancer.
Methodology We included the first 150 patients randomized in the Senticol III trial. This large multicen-tric, prospective, randomized, and international 'validation study' tries to validate sentinel node biopsy as nodal staging of early cervical cancers (stage Ia – IIa1).

Cervical tumor slides were analyzed and stratified based on well-established histological criteria (SEDLIS criteria). The immune microenvironment characteristics including TIL's in-filtration and PDL1 CPS score were assessed. We made HPV detection and typing by PCR of the tumor samples. We performed DNA and RNA extractions from the FFPE tumor specimens. Using the dedicated gene panel developed by our team, we analyzed 571 genes commonly altered in cancer. We performed high throughput RNA sequencing to es-tablish the gene expression profile of each tumor and its associated stroma.

The genomic and transcriptomic analysis assessed the tumor mutational load, the most frequently altered genes and their expression. The biostatistical analyses will correlate mo-lecular alterations, histopathological and clinical classical features, with patient outcome. The different parameters will be first analyzed independently (univariate analysis) and then in a multiparametric manner (logistic regression).
Results TiP : No results
Conclusion TiP : No conclusion
Disclosures No disclosures declared

#462 DO CONCURRENT MULTIPLE INFECTIONS WITH HIGH-RISK HPVS CARRY A MORE MALIGNANT POTENTIAL THAN A SINGLE INFECTION IN THE UTERINE CERVIX?: A RETROSPECTIVE STUDY FOR YOUNG KOREAN WOMEN

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Introduction/Background The high-risk human papilloma virus (HR-HPV) has been known as the most important carcinogen in uterine cervical carcinoma. Concurrent multiple infections with HR-HPV are prevalent in young women. However, there is limited evidence on the malignant potential of these concurrent multiple infections.
Methodology This study included women aged below 36 years undergone cervical conization from 2012 to 2023. They underwent an HPV test by cervical swab within 12 months prior to the surgery. The HPV test was performed using DNA microarray or real-time polymerase chain reaction. They were divided into two groups: one with a single infection with HR-HPV 16 and the other with concurrent multiple infections with HR-HPVs, including HR-HPV 16. Additionally, they were categorized into two groups based on the pathologic result of conization: one was HSIL+, including high-grade squamous intraepithelial lesion (HSIL), carcinoma in situ (CIS), invasive carcinoma, and the other was CIS+, including HSIL, CIS, invasive carcinoma. The ratio of HSIL+ or CIS+ between the groups was analyzed using logistic regression. All statistical analyses were conducted using SPSS version 26 (IBM Corp., Armonk, NY, USA).
Results Of the included patients, 76 were found to be infected with HPV 16. The single-infection group consisted of 31 (40.8%), whereas the group with concurrent multiple infections consisted of 45 (59.2%). In the logistic regression used to compare the malignant potential between the groups, no significant difference was observed. For HSIL+, the odds ratio was 1.032 (95% CI = 0.256–4.169, P = 0.964) between the single-infection and concurrent multiple infection groups, whereas for CIS+, it was 0.583 (95% CI = 0.238–1.427, P = 0.238).
Conclusion The malignant potential was not significantly different between concurrent multiple infections with HR-HPVs, including HPV 16, and a single infection with HR-HPV 16 in young Korean women. However, this result should be validated in a larger cohort.