



Abstract #320 Figure 1 Kaplan-Meier estimate of disease free survival in patients after fertility sparing treatment of adenocarcinoma in situ and microinvasive carcinoma of the uterine cervix according to the HPV status in the follow-up

Conclusion In our retrospective study of 143 patients, we confirmed high risk of skip lesions after fertility sparing treatment of patients with AIS or microinvasive AC. Risk of recurrence was strongly associated with HPV status. We found no case of recurrence in HPV negative patients. HPV testing and genotyping can be used as a triage mechanism in follow-up these patients.

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#365

CERVICAL CANCER SCREENING IN INDIA – IS HPV SELF SAMPLING THE SOLUTION TO COMBAT THE HUGE DISEASE BURDEN?

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Introduction/Background Evidence suggest HPV based primary cervical cancer screening to be most promising. HPV-self sampling (HPV-SS) has been investigated for improving cervical cancer screening coverage in high income countries. Success of HPV-Self sampling (HPV-SS) in resource constrained countries like India, with diverse population, will depend on developing impactful beneficiary-centered health education material, social and behavioral approaches to inform and educate women towards cervical cancer and HPV-SS and on precision in performing test by beneficiaries. The current study was undertaken with objectives to determine knowledge, attitudes and practices (KAP), acceptability, barriers, agreement rates and prevalence of HPV in different population subgroups using varied methods of communication.

Methodology The current study enrolled 1600 women in age group of 30–55 yrs, from urban slums (500), urban non-slums (500) and rural (600) settings in Maharashtra, India. Information regarding cervical cancer and steps for collecting self-sample was explained by two modalities; health education by trained health personnel in health education arm and through printed pictorial depiction in the pamphlet arm. One sample for HPV testing was collected by health personnel for each participant in both arms.

Results Overall prevalence of HPV was 7.8% with no significant differences across the settings. Overall acceptance of HPV-SS was 98.4%. Awareness regarding cervical cancer and HPV-SS was similar across settings and modalities of education. The overall concordance rates between HPV-SS and

health personnel collected sample was 94.8% ($k=0.508$, $CI=0.458–0.559$, $p<0.001$) and was similar across settings. Compliance for clinical assessment of screen positive women and for treatment was 76.8% and 80% respectively.

Conclusion The study demonstrated that HPV-SS is acceptable, feasible and implementable in India and will assist in improving cervical cancer screening coverage.

#451

MAGNETIC RESONANCE IMAGING OR EXPERT ULTRASOUND IN PREOPERATIVE LOCAL STAGING OF PATIENTS WITH EARLY-STAGE CERVICAL CANCER: FINAL RESULTS OF THE SENTIX PROSPECTIVE, SINGLE-ARM, INTERNATIONAL TRIAL (CEEGOG CX-01; ENGOT-CX2)

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Introduction/Background SENTIX is a prospective, single-arm, international study of sentinel lymph node (SLN) biopsy without pelvic lymph node dissection (PLND) in patients with early-stage cervical cancer. We report the sensitivity of magnetic resonance imaging (MRI) and expert ultrasound (EUS) in preoperative clinical staging.

Methodology Forty-seven sites from 18 countries participated in the study. Patients with stages 1A1/LVSI+ to 1B2 (FIGO 2018), usual histological types, and no suspicious lymph nodes on imaging were prospectively enrolled between May 2016 and October 2020. One imaging method, either pelvic MRI or EUS, was mandatory for preoperative local staging and was chosen at the investigator's discretion.

Results Among 690 prospectively enrolled patients fulfilling the inclusion criteria, MRI and EUS were performed as the staging imaging modality in 46.7% and 43.1% of patients, respectively, and 10.1% underwent both. Preoperatively unrecognized parametrial involvement was detected by pathology in 26 patients (3.8%) and SLN metastatic involvement in 68 (9.9%) patients, of which 54.4% and 45.6% had

micrometastasis and macrometastasis, respectively, as the largest type of metastasis. MRI and EUS showed comparable sensitivity for tumour size measurement and for the failure to detect parametrial, or macrometastatic LN involvement (table 1). Combining both imaging methods did not increase the outcome (table 1).

Conclusion Pelvic MRI and EUS are equally sensitive methods for assessing clinically relevant parameters in preoperative clinical staging of cervical cancer, including tumour size, parametrial involvement, and macrometastatic nodal involvement.

Disclosures The authors declare no conflict of interest.

Trial registration ClinicalTrials.gov: NCT02494063

Abstract #451 Table 1 Sensitivity of pelvic MRI and EUS in preoperative staging of patients with cervical cancer

		EUS only	MRI only	MRI+EUS	p
Parametrial involvement based on pathology *	Yes	9 (3.6%)	15 (5.0%)	2 (3.1%)	0.687
	No	239 (96.4%)	286 (95.0%)	62 (96.9%)	
Macrometastatic lymph node involvement based on pathology	Yes	18 (6.0%)	19 (5.96%)	4 (5.8%)	0.876
	No	280 (94.0%)	303 (94.04%)	66 (94.2%)	
Tumour size assessment**	<5 mm	231 (77.52%)	242 (75.16%)	51 (72.86%)	0.452
	5–10 mm	33 (11.07%)	35 (10.87%)	7 (10.0%)	
	10–20 mm	23 (7.72%)	35 (10.87%)	10 (14.29%)	
	>20 mm	11 (3.69%)	10 (3.11%)	2 (2.86%)	

*Only patients who underwent parametrectomy.

**Discrepancy between the largest tumour size assessed by preoperative imaging and final pathology.

EUS: expert ultrasound; MRI: magnetic resonance imaging.

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#827

APPLICATION OF PAX1 AND JAM3 GENE METHYLATION DETECTION AS A TRIAGE TOOL FOR CERVICAL CANCER SCREENING IN WOMEN: ANALYSIS OF A SINGLE-CENTER PROSPECTIVE STUDY IN CHINA

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Introduction/Background Currently, cervical cytology and HPV DNA testing are the most widely employed methods. However, these screening approaches possess inherent advantages and limitations that contribute to overdiagnosis or overuse of colposcopy, as over 30% of cases with CIN2, CIN3, and invasive cancers remain indistinguishable through cytology alone.

Methodology A total of 549 participants were enrolled in the study. Cervical brush sampling was performed on all participants to collect cervical exfoliated cells. These cells were then subjected to analysis using liquid-based cytology, HPV testing, and PAX1-JAM3 gene methylation detection (CISPOLY, China). The results obtained were compared with pathological findings.

Results A total of 549 participants were included in this study, encompassing various histological diagnoses across different

age groups, including benign abnormalities (n=31), benign/CIN1 (n=321), CIN2 (n=44), CIN3 (n=36), cervical cancer (n=26), postoperative cases (n=28), and other malignant tumors (n=20). When compared to HPV testing (sensitivity: 94.68%, specificity: 9.95%) and liquid-based cytology (LBC) (sensitivity: 89.62%, specificity: 45.5%), dual-gene methylation detection of PAX1-JAM3 exhibited higher sensitivity (92.45%) and specificity (95.16%) for detecting CIN2 across all age groups. For CIN3, the methylation performance demonstrated a sensitivity of 98.39% and a specificity of 86.78%. In the population aged 50 years or older, dual-gene methylation detection exhibited a sensitivity of 100% and a specificity of 93.98% for detecting CIN2, surpassing the lower sensitivity (89.47%) and specificity (14.61%) of HPV testing and LBC (sensitivity: 91.3%, specificity: 54.17%). The misdiagnosis rates for cancer were 0% for PAX1-JAM3 dual-gene methylation detection, 5% for HPV testing, and 7% for LBC among all participants.

Conclusion Our findings demonstrate that gene methylation detection, when compared to HPV testing and cytology, shows promise in cervical cancer screening, particularly for patients with CIN2 or lower. It has the potential to serve as an independent biomarker for accurate cervical cancer diagnosis and triage among the Chinese population.

#864

A NOMOGRAM COMBINING MRI AND SERUM INFLAMMATORY BIOMARKERS PREDICTS POSTOPERATIVE VAGINAL INVASION IN IB-IIA STAGE CERVICAL CANCER — A SINGLE INSTITUTIONAL RETROSPECTIVE STUDY OF 580 PATIENTS

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Introduction/Background In cervical cancer (CC), pelvic examination has long been considered the standard method for clinical stage classification. However, it may easily misjudge and bias, including the occult vaginal invasion (VI). Insufficient preoperative assessment of VI often leads to vaginal lesions residues or inferior tumor-free distance during the operation. Recently studies showed MRI has the potential to detect occult tumors. At the same time, serum inflammatory biomarkers have been demonstrated to correlate with the tumor migration in various tumors such as lung cancer, esophageal cancer, and gastric cancer. Combining MRI and inflammatory biomarkers is meaningful to predict occult VI in CC patients with surgical procedures.

Methodology Our study was designed one-center and retrospectively. 580 CC patients with FIGO2018 stages IB-IIA2 were enrolled between January 2013 and December 2021. All patients underwent preoperative MRI and radical hysterectomy. The demographic, bimanual examination, MRI, and laboratory data were analyzed based on logistic regression analysis. Then the nomogram was developed to predict the probability occurrence of postoperative VI.

Results All patients were randomly divided into training set (n = 290) and validating set (n = 290). Parameters including MRI-derived vaginal invasion ($P < 0.018$), clinical vaginal invasion ($P < 0.038$), systemic inflammatory response index (SIRI) ($P < 0.001$), and platelet/albumin ratio (PAR) ($P < 0.013$) were the independent diagnostic factor for