

cancer can reflect its dose-based advantages, associating with a remarkable reduction of patients' adverse reactions and a satisfactory therapeutic effect.

**Disclosures** None.

### 203 HIGH EXPRESSION OF NANOG AND CRY1 IS INVOLVED WITH TUMOR PROGRESSION AND POOR PROGNOSIS IN PATIENTS WITH CERVICAL CANCER

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**Introduction/Background** Nanog is a well-known transcription factor regulating an embryonic stem cell maintenance. Recently, many evidences have been accumulated that overexpression of Nanog is intimately involved in tumorigenesis. However, the role of Nanog in cervical cancer has not been elucidated yet. Thus, we investigated the expression and clinical significance of Nanog in cervical cancer.

**Methodology** To evaluate the expression level of NANOG and CRY1, the immunohistochemistry on 170 cervical cancers and 263 cervical intraepithelial neoplasia (CIN) samples and the clinicopathologic variables of cervical cancer patients were compared to evaluate the significance of Nanog and CRY1 in cervical cancer. Also, in vitro assessment was performed by using Nanog knock down cervical cancer cell lines.

**Results** Nanog and CRY1 expression was higher in cervical cancer tissues than in CIN tissues and normal epithelial tissues (both  $p < 0.001$ ). Importantly, Nanog and CRY1 overexpression was associated with poor chemoradiation response ( $p < 0.035$ ,  $p < 0.003$ , respectively). Multivariate survival analysis revealed that overexpression of Nanog (hazard ratio = 0.016; 95% confidence interval [CI]: 1.25–9.27),  $p = 0.016$ ) as an independent prognostic factor for overall survival. Also, the combination of high Nanog and CRY1 expression showed the highest hazard ratio (5.87; 95% CI: 2.18–15.82,  $p < 0.001$ ) for overall survival. In vitro results also demonstrated the knockdown of Nanog was associated with increased cell viability ( $p < 0.001$ ), migration ( $p < 0.001$ ) and growth ( $p < 0.001$ ) supporting the oncogenic role of Nanog in cervical cancer.

**Conclusion** This study showed that overexpression of Nanog could be a good biomarker for the prediction of chemoradiation response. The results of survival analysis suggest a strong association between Nanog as well as CRY1 expression and poor overall survival, indicative of the potential role of this combination as a prognostic marker in clinical assessment.

**Disclosures** To the best of our knowledge, the named authors have no conflict of interest, financial or otherwise.

### 204 PERFORMANCE AND DIAGNOSTIC ACCURACY OF HUMAN PAPILLOMAVIRUS TESTING ON URINE AND SELF-COLLECTED VAGINAL SAMPLES IN A REFERRAL POPULATION

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**Introduction/Background** Human papillomavirus (HPV) is well established as the main cause of cervical cancer. Non-invasive self-collected urine and vaginal sampling have the potential advantage of increasing patient compliance with cervical cancer screening.

**Methodology** Women referred for colposcopy at Korea University Guro Hospital, following abnormal cytology, were included this study. A total of 314 paired urine, vaginal and cervical samples were collected. Primary endpoints were sensitivity for CIN2+/CIN3+ and specificity for <CIN2; secondary endpoints were the relative accuracy of hrHPV test results in vaginal and urine samples versus cervical samples.

**Results** For clinician-collected cervical samples, Sejong Realtime HR-S HPV test sensitivity for detecting and specificity from were similar to well-established test (Anyplex™ II HPV 28) [sensitivity for CIN3+ (n=109) 93.27% (95% confidence interval (CI), 86.62–97.25); CIN2+ (n=130) 92.74% (95% CI, 86.67–96.63); specificity for <CIN2 31.82% (95% CI, 25.01–39.25)]. All the paired differences (cervical versus urine sampling, cervix versus vaginal sampling) in sensitivity were statistically significant. However, among women with ASCUS/LSIL cytology, hrHPV sensitivity on vaginal samples was comparable to that of cervical samples for detection of CIN2+ and CIN3+ lesions. In addition, hrHPV sensitivity of Anyplex II HPV 28 assay on urine was comparable to that of cervical samples for detection of CIN3+ lesions ( $p=0.07$ ) in women with ASCUS/LSIL cytology.

**Conclusion** HPV tests using urine and vaginal samples were still inferior to clinician-collected cervical samples in terms of detecting CIN2/3. However, these results indicate that combination of cytology with reflex hrHPV test using vaginal and urine samples may offer a reliable strategy for discriminating women at greater risk of precancerous lesion, increasing compliance of patients.

**Disclosures** I have no conflict of interest to disclose.

### 235 SUCCOR CONE: IS IT CERVICAL CONIZATION A PROTECTIVE MANEUVER

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**Introduction/Background** After the publication of the LACC trial, current evidence has focused on looking for the different reasons that have led to the open approach presenting better results than minimally invasive surgery (MIS). To date, no studies have considered the possible protective effect of cervical conization (CC).

**Methodology Objective:** The main goal of this study was to compare disease-free survival (DFS) and overall survival (OS) at 4.5 years in patients with stage IB1 cervical cancer who underwent radical hysterectomy (2013–2014) after CC vs non-CC patients. The secondary goal was to compare DFS by subgroups (tumor size and surgical approach in patients who underwent CC and those who did not) in the Propensity Matching Score (PMS) database.

**Methods:** Taking from 1272 patients from the European database belonging to the SUCCOR study and after applying