DEFINING THE LONGITUDINAL RISK OF CIN3+ IN PATIENTS WITH LESS THAN CIN2 COLPOSCOPY FOLLOWING INDEX HIGH GRADE COLPOLOGY

1Sabrina Piedimonte*, 1Nathaniel Jembere, 1Kyle Tsang, 3Julia Gao, 1Rachel Kupets, 1University of Toronto, Gynecologic Oncology, Toronto, Canada; 2Cancer Care Ontario, 1Toronto, Canada; 3Sunnybrook Health Sciences Center, Gynecologic Oncology, Toronto, Canada

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Objectives To determine the baseline and cumulative risk of CIN3 and invasive cervical cancer in patients with <CIN2 colposcopy following a high-grade screening cytology

Methods By linking administrative databases including cytology, pathology, cancer registries and physician billing history, a population-based cohort study was performed on women with <CIN2 initial colposcopy between January 2012- December 2013 including only women with antecedent high grade cytology (ASC-H, HSIL, invasive squamous cell carcinoma(SCC), adenocarcinoma, AGC or AIS. Three and five-year risks of CIN 3 and invasive cervical cancer were generated using Kaplan Meier survival analysis.

Results Among 4168 women with ASC-H, HSIL, SCC or adenocarcinoma on screening cytology, the 3/5-year CIN3 incidence rates were 17.7%/20.0%(no biopsy), 13.0/15.1%(negative biopsy) and 18.9%/20.0%(LSIL biopsy) while for AGC/ AIS (n=944) cytology, the respective 3- and 5-year rates of CIN3 were 7.42%/8.39%(no biopsy), 7.41%/9.26%(negative biopsy) and 7.69%/7.69%(LSIL biopsy). The 3 and 5-year invasive cancer rates were: 1.25%/1.68%(no biopsy), 0.78%/1.04%(negative biopsy) and 0%/0%(LSIL biopsy) after AGC/AIS screening cytology. By screening cytology, participants referred for HSIL had the highest 3- and 5-year rates of CIN3(18.9% and 21%) compared to AGC (7.22%/8.28%) and ASC-H(15.5%/18%). The 3- and 5-year invasive cancer were 1.38%/1.75% for HSIL, 0.85%/1.17% for AGC and 0.91%/1.36% for ASC-H.

Conclusions In patients referred for high grade cytology where colposcopy shows <CIN2, the subsequent risk of invasive cancer at 5 years is sufficiently elevated to warrant closer surveillance in colposcopy. Risk is slightly less significant for AGC or AIS cytology.

ROLE OF EXTENSIVE PROCESSING OF RISK-REDUCING SALPINGO-OOPHORECTOMY SPECIMENS IN BRCA1/2 GERMLINE PATHOGENIC VARIANT CARRIERS

1Iris Stroot*, 1Jan Brouwer, 2Geertuïda De Bock, 3Harry Hollema, 1University of Toronto, Gynecologic Oncology, Groningen, Netherlands; 2University Medical Center Groningen, Gynecologic Oncology, Groningen, Netherlands; 3University Medical Center Groningen, Pathology, Groningen, Netherlands; 4Netherlands Cancer Institute, Epidemiology, Amsterdam, Netherlands

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Objectives We assessed the importance of extensive processing of risk-reducing salpingo-oophorectomy (RRSO) specimens with regard to 1) detecting serous tubal intra-epithelial carcinoma (STIC) or high-grade serous carcinoma (HGSC) at RRSO and 2) development of HGSC in the follow-up after normal RRSO in BRCA1/2 germline pathogenic variant (gPV) carriers.

Methods From Hereditary Breast and Ovarian cancer in the Netherlands (HEBON) study, BRCA1/2 gPV carriers who underwent RRSO between 1995 and 2018 were included. Pathology reports of RRSOs were retrieved from the Dutch pathology registry and extent of processing was assessed. To confirm diagnoses of STIC/HGSC at RRSO or HGSC after normal RRSO, tissue slides of RRSO specimens with (pre) malignancy and from women who developed HGSC after RRSO were reviewed. Fisher’s exact and Mann-Whitney U test were used to compare the extent of processing between the groups.

Results In total 2557 women, of which 1624 BRCA1, 930 BRCA2, and 3 with both BRCA1/2 gPV with 10.5 years of median follow-up were included. 8 isolated STICs and 30 HGSCs at RRSO were found, with 16 HGSCs after normal RRSO. Women with STIC/HGSC at RRSO more often had totally embedded fallopian tubes and ovaries (81.6 and 84.2 versus 61.1 and 65.9% respectively; p=0.01 and p=0.02). Women who did not have their RRSO specimen totally embedded had a 6 times higher risk to develop HGSC during follow-up.

Conclusions Extensive processing of RRSO specimens of BRCA1/2 gPV carriers increased detection of STIC/HGSC at RRSO and subsequently resulted in a risk-reduction for developing HGSC after normal RRSO.