IGCS19-0552

74 HYPERMETHYLATION FOR CERVICAL CANCER SCREENING AMONG HIV-POSITIVE WOMEN IN SOUTH AFRICAN

[1]C Visser, [2]W Kremer, [1]E Breytenbach, [2]C Meijer, [1]G Dreyer*. [1]*University of Pretoria, Department of Obstetrics and Gynaecology, Pretoria, South Africa*; [2]*Free University Amsterdam, Department of Pathology, Amsterdam, The Netherlands*

10.1136/ijgc-2019-IGCS.74

Objectives We investigated the role of molecular markers in cervical cancer screening for South African women living with HIV (WLHIV).

Methods South African WLHIV underwent cervical screening and colposcopy-directed biopsy with molecular screening. Data included cytology, HPV (high-risk), HPV (16/18) and histology. Detection of FAM19A4/miR124–2 hypermethylation was performed on DNA isolated from cervical scrapes. Diagnostic performance of cytology and HPV tests alone and combined with FAM19A4/miR124–2 hypermethylation was determined.

Results 285 women were included in the analyses. Cytology provided the highest specificity (91.6%), but lowest sensitivity (59.3%), HPV (high-risk) provided the highest sensitivity (83.1%), but lowest specificity (66.4%). Combining cytology with methylation did not improve the performance of cytology alone, but triage of HPV (high-risk) with methylation, increased specificity (76.1%) while maintaining an acceptable sensitivity (72.9%). Similar performance was observed for HPV (16/18) with methylation triage (sensitivity 79.7%, specificity 74.8%). Number referred per CIN3+ was lowest for cytology (1.5), but only slightly higher for HPV (high-risk) or HPV (16/18) with methylation triage (2.3 and 2.2).

Conclusions We report promising results using molecular triage of HPV positive WLHIV with methylation markers regarding sensitivity and specificity for CIN 3+.

IGCS19-0284

75 LEBANESE EXPERIENCE WITH CYTOREDUCTIVE SURGERY IN OVARIAN CANCER: A SINGLE INSTITUTION SERIES

[1]D Atallah, [1]M Moubarak*, [1]B Dagher, [1]N El Kassis, [1]H El Hajj, [2]G Chahine. [1]*Saint Joseph University, Obstetrics and Gynecology, Beirut, Lebanon*; [2]*Saint Joseph University, Oncology, Beirut, Lebanon*

10.1136/ijgc-2019-IGCS.75

Objectives To review the surgical outcomes of cytoreductive surgery for ovarian cancer in a single institution.

Methods we reviewed all patients with ovarian cancer who received a cytoreductive surgery between January 2005 and December 2018 at Hôtel-Dieu de France University Hospital, Lebanon.

Results 161 patients were included. Mean age at surgery was 54 years (range 16 – 83 years). Cytoreductive surgery was done in four settings: upfront surgery (40%), interval surgery post neoadjuvant chemotherapy (42%), post recurrence (7%), post incomplete primary surgery (11%). 67% of operated patients were in stage III. Surgical resection included bowel resection (48%), diaphragmatic peritoneal resection (25%) and splenectomy (15%). 89% of patients received a pelvic and para-aortic lymphadenectomy. Node involvement was noted in 48% of cases. No recurrence was seen in 56% of cases and the mean interval of recurrence was estimated at 21 months with 78% of recurrences occurring after 12 months from surgery. Overall survival was estimated at 40 months (range 2 – 165 months). No impact on survival was detected whether the patient benefited from an upfront surgery or an interval one post neoadjuvant chemotherapy: 36 months vs 30 months respectively, (p= 0.39). Better survival was encountered when only one lymph node was involved (85 months vs 42 months, p=0.037).Patients with LNR ≤ 0.03 had a survival of 50 months vs. 27 months in patients with LNR > 0.03.

Conclusions Huge efforts including extensive cytoreductive surgeries are being performed at institutions in developing countries in order to improve survival and lower recurrence in ovarian cancer patients.

E-Poster Discussions

Poster Discussion with the Professor Station 1

IGCS19-0419

76 PATIENTS (PTS) WITH RECURRENT GYNECOLOGIC CANCER WHOSE TUMORS HAVE ACTIVATING WNT PATHWAY MUTATIONS RESPOND BETTER TO DKN-01, A DICKKOPF-1 (DKK1) INHIBITOR

[1]R Arend*, [2]C Castro, [3]U Matulonis, [4]E Hamilton, [5]C Gunderson, [6]K LyBarger, [7]H Goodman, [8]L Duska, [9]H Mahdi, [10]A ElNaggar, [11]M Kagey, [12]L Barroilhet, [13]W Bradley, [14]J Sachdev, [15]D O'Malley, [16]C Sirard, [1]M Birrer. [1]*University of Alabama at Birmingham, Gynecologic Oncology, Birmingham, USA*; [2]*Massachusetts General Hospital, Hematology/Oncology, Boston, USA*; [3]*Dana Farber Cancer Institute, Gynecologic Oncology, Boston, USA*; [4]*Sarah Cannon Research Institute/Tennessee Oncology, Breast and Gynecologic Cancer Research Program, Nashville, USA*; [5]*The University of Oklahoma Health Sciences Center, Gynecologic Oncology, Oklahoma City, USA*; [6]*Sarah Cannon Research Institute at HCA Midwest, Gynecologic Oncology, Kansas City, USA*; [7]*Florida Cancer Specialists, Gynecologic Oncology, West Palm Beach, USA*; [8]*University of Virginia Health System, Gynecologic Oncology, Charlottesville, USA*; [9]*Cleveland Clinic, Gynecologic Oncology, Cleveland, USA*; [10]*West Cancer Clinic, Gynecologic Oncology, Memphis, USA*; [11]*Leap Therapeutics- Inc., Research, Cambridge, USA*; [12]*University of Wisconsin Hospitals and Clinics, Gynecologic Oncology, Madison, USA*; [13]*Froedtert and Medical College of Wisconsin, Gynecology/Oncology, Milwaukee, USA*; [14]*HonorHealth Research Institute, Hematology/Oncology, Scottsdale, USA*; [15]*Ohio State University, Gynecologic Oncology, Columbus, USA*; [16]*Leap Therapeutics- Inc., Clinical Research, Cambridge, USA*

10.1136/ijgc-2019-IGCS.76

Objectives Wnt/β-catenin signaling is frequently dysregulated in gynecologic malignancies. *CTNNB1*, *APC* and *RNF43* mutations cause pathway activation; *CTNNB1* stabilizing mutations lead to elevated DKK1 expression which promotes an immune suppressive tumor microenvironment. Neutralization by DKN-01 (D), a mAb against DKK1, is being tested in a phase 2 basket study.

Methods Eligibility included recurrent endometrial cancer (EC) or platinum resistant/refractory ovarian cancer (OC) enriched (~50%) for Wnt signaling-related genetic alterations. Subgroup analysis was done in pts with genetic alterations associated with activation of Wnt/β-catenin signaling (*CTNNB1*, *APC* or *RNF43*). Pts were assigned (MD discretion) to receive D (300 mg on Days 1 & 15) or D + paclitaxel (P) (80 mg/m2 on Days 1, 8 and 15) of a 28-day cycle. Primary endpoint is

Abstract 76 Table 1

	Evaluable N	PR N	SD N	PD N	DCR N (%)
D	19	2	7	10	9 (47.4)
EC	10	2	3	5	5 (50.0)
OC	9	0	4	5	4 (44.4)
CTNNB1, APC, RNF43	5	1	3	1	4 (80.0)
D + P	35	1	21	13	22 (62.9)
EC	18	1	9	8	10 (55.5)
OC	17	0	12	5	12 (70.6)
CTNNB1, APC, RNF43	9	1	4	4	5 (55.5)

ORR; exploratory endpoints: DKK1 expression (serum/plasma/tumor), tumor genetics, infiltrating immune cells, and β-catenin IHC.

Results 80 pts are enrolled: D (n=33, 19 EC, 14 OC); D + P (n=47; 28 EC, 19 OC); 18 pts with *CTNNB1* (n=13), *APC* (n=2), *RNF43* (n=2), or *CTNNB1* + *RNF43* (n=1). 54 pts evaluable for response (table 1). D and D + P were safe and well tolerated with no additive toxicities. The trial is ongoing; updated safety, efficacy and correlative work are pending.

Conclusions D and D + P have activity in pts with recurrent gyn cancers; the role of Wnt/β-catenin pathway activation as a potential biomarker for response is currently under study. Clinical trial information: NCT03395080.

IGCS19-0049

77 CERVICAL PRE-CANCER VS INVASIVE CANCER: MOLECULAR DIFFERENTIATION WITH POTENTIAL OF IMPROVING CERVICAL CANCER SCREENING WORLDWIDE

[1]C Banila*, [1]B Nedjai, [1]C Reuter, [2]K Cuschieri, [3]G Clifford, [1]A Lorincz. *[1]Queen Mary University of London, Wolfson Institute of preventive Medicine, London, UK; [2]University of Edinburgh, Royal Infirmary of Edinburgh, Edinburgh, UK; [3]World Health Organization, Institute for Research on Cancer, Lyon, France*

10.1136/ijgc-2019-IGCS.77

Objectives The S5 DNA-methylation classifier, based on target CpG sites of the human gene *EPB41L3*, and viral late gene regions of HPV-16,18,31 and 33 (Lorincz A *et al*., 2016) has demonstrated better performance for detection of CIN2/3-women than either HPV16/18 genotyping, cytology or combination. We tested the performance of S5 in detecting invasive cancers versus pre-cancers and quantified the degree of separation between normal/CIN1, CIN2/3 and invasive cancer S5 scores.

Methods Methylation status of the S5-CpGs was tested in DNA extracted from exfoliated cervical cell from the UK (n=138),Spain(n=100),Colombia(n=96),Philippines(n=50), Georgia(n=42) and Ethiopia(n=79). Samples were histologically defined as negative/CIN1, CIN2/3 and invasive cancer. DNA-bisulfite conversion was carried out and followed by pyrosequencing for the 6 components of S5. Average methylation was calculated for each marker to define the S5 score.

Results Methylation at all sites increased proportionally with disease severity showing a Cuzick-trend of z=9.2933 (p<2.2x10–16). The separation of normal/CIN1 from CIN2/3 and from cancer was highly-significant (Mann-Whitney, all p<0.0001). S5 also showed highly-significant difference between CIN2/3 and invasive cancer from matched cohorts: UK(p<0.003), Spain(p<0.0001) and Colombia(p<0.003). ROC-curves were used to assess the diagnostic potential of S5 in differentiating cancers from CIN2/3. The AUC was 0.86(CI 95%:0.7965 to 0.9131,p<0.0001) with a sensitivity of 79.8% and a specificity of 83.1%, based on a cut-off at highest Youden J-index.

Conclusions The S5 methylation classifier may be useful in cervical screening programs for identifying progressive pre-cancers in women. Although the separation was very good, there is room for improvement by addition of new markers derived from our ongoing NGS multi-omics study.

IGCS19-0225

78 IGCS GYNECOLOGY ONCOLOGY GLOBAL CURRICULUM AND MENTORSHIP PROGRAM IN MOZAMBIQUE: CHALLENGES AND RESULTS OF AN OVERSEAS SURGICAL TRAINING PROGRAM

[1]D Changule*, [1]R Rangeiro, [1]S Daud, [1]M Ribeiro, [1]E Luis, [1]F Mabota, [2]GF Cintra, [3]R Moretti-Marques, [4]MA Vieira, [5]MP Salcedo, [6]ES Baker, [7]C Lorenzoni, [6]KM Schnmeler, [8]A Lopes. *[1]Hospital Central de Maputo, Gynecologic and obstetrics, Maputo, Mozambique; [2]Hospital Sírio Libanês, Gynecologic-Oncology, Brasília, Brazil; [3]Hospital Albert Einstein, Gynecologic-Oncology, São-Paulo, Brazil; [4]Hospital de Cancer de Barretos, Gynecologic-Oncology, Barretos, Brazil; [5]Universidade Federal de Ciências de Saúde de Porto Alegre/Irmandade Santa Casa de Misericórdia, Gynecologic-Oncology, Porto Alegre, Brazil; [6]Departments of Gynecologic-Oncology and Reprodutive Medicine from the University of Texas MD Anderson Cancer Center- Houston, Gynecologic-Oncology, Texas, USA; [7]Ministerio da Saude de Mocambique, Hospital Central de Maputo- Anatomia Patologica, Maputo, Mozambique; [8]Instituto Brasileiro de Controle do Cancer-IBCC, Gynecologic-Oncologic, Sao-Paulo, Brazil*

10.1136/ijgc-2019-IGCS.78

Objectives To describe the implementation of the IGCS Gynecologic Oncology Global Curriculum and Mentorship Program (Global Curriculum) in Mozambique.

Methods The Global Curriculum is a training program for regions that do not have formal training in Gynecologic Oncology. The Mozambique program is a collaboration between Maputo Central Hospital, five institutions in Brazil and MD Anderson Cancer Center. In January 2016, three Obstetrician-Gynecologists were selected as the Global Curriculum fellows. They follow an on-line curriculum, receive quarterly visits from international mentors, participate in monthly tumor boards using Project ECHO and enter case logs into the REDcap system.

Results To date, there have been 9 visits to Mozambique. Each visit consists of didactic lectures, surgical training, multidisciplinary care and the management of preivansive desease. Between visits, monthly videoconferences are held to discuss patient cases. A total of 91 surgeries have been perfomed, including 45 radical hysterectomies, 11 cold knife conizations and 14 radical vulvectomies. Six colposcopy and LEEP courses were held with 202 attendees from all provinces of the country, 174 colposcopies and 35 LEEPs perfomed. In August 2018, a patient underwent radical hysterectomy and it was the first time this procedure was perfomed exclusively by Mozambican surgeons.

Conclusions The IGCS model of surgical training is feasible and has already shown good results for the oncology patients and fellows in Mozambique.