

Results Among 150 HGSC samples, we identified 44 samples (29.3%) with reportable variants with variant allele frequencies from 10.3% - 99.4%. These included 35 point mutations/insertions/deletions, 7 exon/whole gene deletions, and 2 BRCA1 exon 13 duplications. A subset (26) of these variants were then confirmed by targeted assays using Sanger and MLPA.

Conclusions Utilizing NGS technology, we reliably identified BRCA mutations in FFPE tumor samples. A validated NGS pipeline provides a valuable clinical tool to conduct Traceback initiatives to the families of deceased ovarian cancer patients never tested for germline mutations.

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234 CLONALITY ANALYSIS OF SYNCHRONOUS ENDOMETRIAL AND OVARIAN CARCINOMAS IN PATIENTS WITH LYNCH SYNDROME

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Objectives Sporadic synchronous endometrial (ECs) and ovarian cancers (OCs) have been shown to be clonally-related and to likely constitute metastases from each other. We sought to define whether synchronous ECs/OCs in patients with Lynch syndrome would be clonally-related or independent tumors.

Methods We subjected synchronous ECs/OCs from four patients with clinically confirmed Lynch syndrome to massively parallel sequencing targeting 468 cancer-related genes. Somatic mutations, copy number alterations, clonal relatedness and clonal decomposition were performed using state-of-the-art bioinformatics methods.

Results All synchronous ECs/OCs were considered independent primaries based on clinico-pathologic criteria. Sequencing analysis revealed that the ECs and OCs of three cases harbored strikingly similar repertoires of somatic mutations and gene copy number alterations and were clonally related. Specifically, in one case (LS2), a subset of subclonal mutations in the EC became clonal in the OC, suggesting that the ovarian tumor originated from the endometrial tumor. In contrast, in another case (LS5), the EC and OC harbored distinct somatic mutation profiles with no shared mutations; consistent with them constituting two independent primary tumors. In this case (LS5), a *PTEN* mutation and loss of protein expression were found to be restricted to the EC.

Conclusions Akin to sporadic synchronous ECs/OCs, the majority of Lynch syndrome-related synchronous ECs/OCs originate from a single primary tumor at variance with their clinical-pathologic diagnosis. Given that in the context of Lynch syndrome, synchronous ECs/OCs may be independent primary tumors, Lynch syndrome testing should be considered when synchronous ECs/OCs present with distinct genetic or immunohistochemical profiles.

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235 ABO, RH, KELL AND MN SYSTEMS WITHIN UTERINE CANCER

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Objectives The blood group antigens are found in several human cell types. There is a variable expression of histo-blood groups antigens within normal endometrium, which are also involved in hormonal regulation of glycosyltransferase activity. We aimed to investigate ABO, RH-hR, Kel and MN systems in women with Uterine cancer (UCa) in Adjara (Georgia) population.

Methods Internationally recognized immunoserology methods were used to reveal the erythrocyte group antigens. The obtained results were statistically processed by using appropriate formulas.

Results From ABO system alleles, r and q alleles frequencies were higher within the patients with UCa compared with control group of patients. From Rh-Hr system, the distribution frequencies of D, c and e alleles, Cc, Ee and EE genotypes, cDe, cDE haplotypes are increased in UCa. From Kell q(k) and p (K) alleles, p(k) allele tends towards to UCa in the tumor. Notably, MN system p (M) and q(N) alleles, revealed q(N) allele increased frequency in UCa compared to control group.

Conclusions Based on our study, ABO, RH-hR, Kell and MN systems antigens may be useful for UCa predisposition and development.

IGCS19-0606

236 BEHAVIORAL AND PSYCHOLOGICAL IMPACT OF ONCOGENETIC COUNSELING FOR HEREDITARY BREAST CANCER

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Objectives Oncogenetic counseling for hereditary breast cancer is an important tool for populational cancer risk screening. Individuals submitted to oncogenetic counseling must be aware about the social and emotional impact of genetic test result in their lives.

Methods Ten years follow-up of a cohort submitted to oncogenetic counseling in Brazil was evaluated for the health perception, depressive or anxious symptoms and life habits/behaviour before and after the oncogenetic counseling. Survival analyzes were performed using the Kaplan-Meier method and the Log-Rank test was used to verify the existence of significant differences.

Results 139 patients have been submitted to oncogenetic counselling, 135 women and 4 men; 113 patients had early onset

breast cancer (81%), 33 patients harbor pathogenic germline mutation or VUS (33%), with the BRCA1 and BRCA2 genes being the most frequently mutated (24% and 15%, respectively). Five years OS was 88% and no statistical difference in the OS was observed in both groups (without mutation 92% and with mutation 76%, p -value=0,138). Fifty-one patients reported having some degree of physical limitation to perform daily activities (41%), with complications of mastectomy being the main cause (62%). Eighteen patients harboring germline mutation stated that the diagnosis helped to change at least one habit of life, such as exercising or having a healthier diet (58%). Most patients had normal depressive scores (67% and 54%, respectively) and no correlation was found between these symptoms and oncological diagnosis (p =0,69 and p =0,75, respectively).

Conclusions In this population, oncogenetic counseling did not have a negative impact.

IGCS19-0542

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ASSOCIATION BETWEEN HIGH RISK HUMAN PAPILLOMAVIRUS INFECTION AND SEXUAL TRANSMISSION DISEASES IN WOMEN OF THE METROPOLITAN AREA OF BUCARAMANGA

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Objectives To evaluate the association between sexually transmitted diseases and HPV infection in women from the metropolitan area of Bucaramanga.

Methods Cross-sectional study in women aged 35 to 65 years who were previously screened for HPV because they presented risk factors for developing cervical cancer through an epidemiological survey. Detection of species and serovars of *Chlamydia trachomatis*, *Haemophilus ducreyi*, Herpesvirus simple (HSV-1/HSV 2), *Mycoplasma genitalium*, *Mycoplasma hominis*, *Neisseria gonorrhoeae*, *Treponema pallidum*, *Trichomonas vaginalis* and *Ureaplasma (urealyticum/parvum)* using multiplex PCR and Specific hybridization (STD Direct Flow CHIP). For convenience, 419 samples were collected from September 2016 to November 2018 and prevalence ratios (PR) were measured to find associations.

Results The prevalence of HPV-HR with at least one genotype was 27.2% (n=114). The main STD detected in women with HPV-HR infection were *Ureaplasma urealyticum/parvum* (78.04%), *Mycoplasma hominis* (43.68%), *Trichomonas vaginalis* (20.3%), and Herpes simplex virus type II (7.88%). The PR showed statistically significant differences between HPV-HR and STD infections such as: *Mycoplasma hominis* (PR: 2.58, p : <0.0001), *Trichomonas vaginalis* (PR: 2.56, p <0.0001), Herpes Simplex type II (RP: 1.77, p : <0.0001).

Conclusions *Mycoplasma hominis*, *Trichomonas vaginalis* and Herpes simplex virus type II are the most frequent coinfection in HPV-HR+ women, and an interesting topic to correlate with cervical cancer development.

Global Health

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WHEN ENDOMETRIAL SAMPLING IS NOT AN OPTION, THE VALUE OF ENDOMETRIAL THICKNESS IN PREDICTING ENDOMETRIAL HYPERPLASIA IN PATIENTS WITH POSTMENOPAUSAL BLEEDING

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Objectives To study the correlation between endometrial thickness (ET) and histopathological hyperplasia to come up with an algorithm to guide the management of patients with postmenopausal bleeding when endometrial sampling is not possible for any reason such as patient refusal, or unavailability of the test.

Methods In this retrospective cohort, we identified 121 patients with histopathological confirmation of endometrial hyperplasia (EH) then we reviewed their ET on ultrasound scans (USS) at the time of obtaining their endometrial samplings using different cutoffs.

Results The sensitivity of the ultrasound, using the cutoff for the ET as 8 mm was 84.3%. The positive predictive value (PPV) of the USS was found to be 61.4% with a prevalence of 56.3%. When we used 7mm as cutoff, the sensitivity of the ultrasound to identify the patients with EH was 90.9%. The PPV was found to be 58.8%. When we used 6mm as cutoff, the sensitivity of the ultrasound to identify the patients with EH was 96.7%. The PPV of the US was found to be 57.9%.

Conclusions In postmenopausal women, endometrial thickness correlates significantly with histopathological EH. In the absence of endometrial sampling, the presence of thickened endometrium is an independent predictor for EH specifically if there is one or more of the risk factors for endometrial cancer such as Obesity, DM or HTN. An algorithm using ET and risk factors can be of great help in guiding the management of these patients where endometrial sampling is not possible.

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GYNECOLOGICAL CANCERS IN HAITI: EPIDEMIOLOGICAL CHARACTERISTICS AND DIAGNOSTIC CHALLENGES

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Objectives To present the three-year epidemiology of gynecological cancers managed by a Haitian cancer program.

Methods This was a retrospective descriptive observational study. Patients aged 15 years old or more admitted to the