participants underwent a pelvic examination by a nurse and a cervical sample was collected and tested for HPV DNA using careHPV (Qiagen, Gaithersburg, MD, USA). Women who tested positive for HPV (HPV+) underwent visual assessment for treatment (VAT) using visual inspection with acetic acid (VIA) to assess eligibility for cryotherapy. All HPV+ women were treated with cryotherapy, loop electrosurgical excision procedure (LEEP), or referred for cancer management based on results.

Results From April 2018 to February 2019, 427 women underwent HPV testing. The median age was 39 years. 86/426 patients (20.2%) were HIV positive. 93 patients (21.8%) were HPV+ and 97.8% (91/93) returned for VAT and treatment including cryotherapy (n=68, 74.7%), LEEP (n=10, 11.0%) and referral for cancer management (n=4, 4.4%). Treatment is pending in 9 patients for cryotherapy.

Conclusions Cervical cancer screening with primary HPV DNA testing, including follow-up and treatment, was found to be feasible in Maputo, Mozambique. This study is ongoing to and includes training medical providers to diagnose and treat cervical preinvasive disease and cancer.

IGCS19-0154

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INCIDENCE OF PELVIC INSUFFICIENCY FRACTURES AFTER EXTERNAL BEAM RADIOTHERAPY FOR GYNECOLOGICAL CANCERS USING POST-TREATMENT IMAGE FOLLOW-UP: A META-ANALYSIS OF 3929 PATIENTS

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Objectives To estimate the overall rate, symptomatic proportion, and most common sites of pelvic insufficiency fracture (PIF) after external beam radiotherapy for gynecological cancer based on post-treatment CT, MRI, PET or bone scintigraphy.

Methods A systematic search of databases (PubMed and EMBASE) was performed (CRD42019125679). The pooled summary of overall PIF (detected by post treatment image follow-up) and the proportion of symptomatic cases were calculated by using the random-effects model weighted by the inverse variance.

Results A total of 702 articles were initially found, resulting in 21 studies that met the inclusion criteria (total 3929 patients). Five hundred and four patients presented with PIF, translating into an overall rate of 14% (95%CI: 10–18%, based on 21

studies). Among these cases with PIF, the proportion of symptomatic patients was 61% (95%CI: 52–69%, based on 14 studies). The total number of PIF was provided by 11 studies, with a total of 610 PIF (mean 1.65/patient that develop PIF). The most common locations were: 39.7% sacro-iliac joint; 33.9% body of the sacrum; 13% pubis; 7% lumbar vertebra; 2.8% iliac bone; 2.1% acetabulum; and 1.5% femoral head/neck.

Conclusions The incidence of PIF after radiotherapy for gynecological cancer is high (14%) with the majority affecting the sacral bone/joint (73.6%). Post-treatment bone surveillance is recommended since almost forty percent of the patients were asymptomatic at the time of PIF diagnosis. Strategies to prevent the fracture in these patients are necessary.

IGCS19-0051

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SEX HORMONAL PROFILE DURING THE DEVELOPMENT FROM ENDOMETRIAL HYPERPLASTIC DISEASE TO ENDOMETRIAL CANCER

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Objectives To explore the endocrine profiles during the development from endometrial hyperplastic disease to endometrial cancer (EC).

Methods A prospective study in the Obstetrics and Gynecology Hospital of Fudan University from September 2011 to Nov 2018 was conducted. A total of 1874 cases were enrolled, including 764 cases of healthy women, 145 cases diagnosed with disordered proliferative endometrium (DPE), 250 cases with simple hyperplasia (SH), 200 cases with complex hyperplasia (CH), 259 cases with endometrial atypical hyperplasia (EAH), 256 cases of EC. Profiles of BMI and sex hormone levels (Estradiol, P, T, FSH, LH, SHBG and E2/SHBG) were analyzed and compared in different groups. Multiple linear regression analysis was done to control for the confounding factor, age.

Results Physiologically, text-book hormonal profiles were confirmed with our study in control group as shown below.

Estradiol elevation only took place in pre-cancerous stage. However, progesterone trend is a bit delayed, the significant difference totally vanished until the stage EEC G2, which stage is also a contraindication for conservative treatment with high potency progestins. No significant difference was found for free estrogen level (FEI) in different groups compared with the control. BMI gradually increases and peaks at EEC (G1, G2), and this group of patients was the only group with both median and mean BMI > 25kg/m², aka, overweight.

Conclusions “Guider Effect Model” was hypothesized that E2 in here is as a guider in theater, once cancer cells gain carnogenic mutation(seated in cancer), the guider just left immediately, while other hormones will be interpreted in presentation d/t word limit

Abstract 104 Figure 1

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PET-CT FINDINGS IN HIV-POSITIVE AND NEGATIVE PATIENTS WITH LOCALLY ADVANCED CERVICAL CANCER IN A SOUTH AFRICAN COHORT

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Objectives PET-CT imaging is commonly used as a staging tool to identify nodal involvement in locally advanced cervical carcinoma (LACC). The value of PET-CT for staging HIV-infected patients with locally advanced CC has not been previously described. We analyzed PET-CT findings in a cohort of patients with LACC in Cape Town, SA.

Methods Patients with LACC FIGO Stage IIb or IIIB, and were referred, on the basis of stage and the availability of bookings, for PET-CT/radiotherapy planning CT from January 2015 to December 2018. A team of expert nuclear medicine physicians and radiologists reported the PET-CT examinations. Descriptive statistics and chi-squared tests were used to compare patients with and without HIV.

Results A total of 286 patients underwent PET-CT. Eighty-nine patients (31.2%) were HIV-positive. Pelvic nodal involvement was notably found in 205 patients (72.4%), including 77.3% of those who had HIV and 70.3% of those who did not ($p=0.22$); para-aortic nodal disease in 114 patients (42.7% of HIV+ vs 38.8% HIV-, $p=0.53$); and distant disease in 55 patients (23.6% of HIV+ vs 17.3% HIV-, $p=0.22$). In total, 223 patients (79.3%), including 81.8% of patients without and 75.0% of patients with HIV ($p=0.31$), were prescribed standard fractionation EBRT. Twenty-two patients (7.8%) were

prescribed hypofractionated EBRT, and 36 patients (12.8%) palliative therapy. Five patients (1.7%) did not return.

Conclusions PET-CT imaging found no differences between LACC patients, with and without HIV, in nodal involvement or occult metastases and did not lead to, or justify, treatment differences.

Surgical Films

IGCS19-0157

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INDOCYANINE GREEN-ASSISTED SENTINEL LYMPH NODE MAPPING IN EARLY-STAGE CERVICAL CANCER

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Objectives To describe step-by-step the technique of ICG injection and the real-time detection of pelvic Sentinel Lymph Nodes using near-infrared imaging.

Methods This is a surgical teaching video demonstrating SLN mapping in uterine cancer using assisted fluorescence imaging. One milliliter of Indocyanine green (2.5 mg/ml) is injected in 2 points into the cervix (deeply in the stroma and/or superficially in the submucosa) at 3 and 9 o'clock with a 22G needle under anesthesia at the beginning of the operation or after set-up of the surgical access.

Results We suggest opening first the entire retroperitoneal space along the external iliac vessels and to identify the ureter and the obliterated umbilical artery. This approach allows to observe the early drainage from the cervix through the parametrium by following the dye progression in the channels before any node is taken to ensure that the true draining SLN is identified and not missed. Although the false negative rate