**Case Report of a Rare Placental Site Trophoblastic Tumour (PSTT)**

**Introduction:**

PSTT, which belongs to a group of conditions called gestational trophoblastic disease (GTD), is very rare and develops from trophoblastic placental cells.

**Methods:**

25-year-old-female, G2P2, presented with abdominal pain, vaginal bleeding, and a raised B-hCG 1563 IU/L (N 5 IU/L). A hysteroscopy and biopsy of the uterus confirmed GTD that featured PSTT. She was referred with a rising B-hCG and post-operative sepsis. Staging investigations included a negative ELISA and a pre-chemotherapy B-hCG of 2835 IU/L. A blood culture confirmed Staphylococcus epidermidis sepsis. A chest-abdomen-pelvis computer tomography (CT) identified a RUL pulmonary lesion, multiple liver metastases and a left ovarian mass in keeping with metastatic disease. According to the FIGO scoring system, she was a stage IV:12 PSTT.

**Results:**

An emergency TAH was performed and chemotherapy initiated with EMA/CO (etoposide 100 mg/m² day 1 and 2, methotrexate 100 mg/m² bolus followed by 200 mg/m² as a 12-hour infusion and actinomycin 0.5 mg on day 1 and 2; alternated on day 8 with cyclophosphamide 600 mg/m² and oncovin 2mg), 8 cycles were completed, her B-hCG decreased from 2835 IU/L to 20 IU/L. CT-scan confirmed a decreased RUL lesion but liver lesions increased in size and new lesions observed with no residual pelvic disease. Radiological imaging confirmed disease progression.

Second-line chemotherapy included the EP-combination (etoposide 100 mg/m² and cisplatin 20 mg/m² day 1-5, every 21 days) for 4 cycles. Persistent low B-hCG values (8-11 IU/L) and a CT-scan observed a decrease in the RUL lesion, with remaining liver lesions which improved and were smaller in size. A partial response to therapy. Surgical consultation for possible resection of remaining lesions was initiated but unfortunately our patient died.

**Conclusion:**

According to published reports PSTT have a mortality rate of 10-20% and in metastatic disease, death occurs within one year of diagnosis. Chang et al. reported a survival rate of 30% for stage II-IV disease. The Zhao-study reports a 10 year survival for stage I approaching 90%, and for stage II-IV, with surgery and chemotherapy, a 50% overall survival at 10 years.
HIV negative women however not only presented with larger mean average tumour size (33.4 mm vs 28.7 mm) and a greater likelihood of deeper stromal invasion by the cervical tumour but also presented with a statistically significant increased likelihood of having positive lymph nodes (p=0.017). Histological subtypes also varied significantly with HIV negative women having a higher incidence of non-squamous histology in comparison to HIV positive counterparts. This is all in keeping with the finding that HIV negative women were more likely to require referral for adjuvant treatment.

**Conclusion:**

HIV positive women present with less negative prognostic indicators such as metastatic disease to the lymph nodes and therefore require less adjuvant therapy than their HIV negative counterparts. It is suspected that this finding is largely attributable to better screening programs and earlier detection in HIV positive patients.

**Recruiting the HPV vaccine catch-up population through related or acquainted female screening recipients**

**Introduction:**

Vaccinating girls against human papillomavirus (HPV) before the onset of sexual activity can significantly reduce the risk of cervical cancer later in life. The national vaccine programme for HPV in South Africa will however be restricted to primary school girls. HPV vaccines are available to private health care users in HIV positive patients. eligible volunteers were vaccinated according to protocol following informed consent and assent. In sites selected for self-funded vaccines, prescriptions were issued for vaccination according to protocol and vaccine participation was monitored telephonically at regular intervals.

**Results:**

One public health care facility and one gynaecologist practice in Pretoria were selected for administration of free HPV vaccines. Five gynaecologist practices in Pretoria agreed to partake in the self-funded vaccine arm of the study. Some sites withdrew their participation during the course of the study, stating reasons as impracticality, lost interest in the research and lack of time. At the remaining site 33 adult women were recruited, mean age 43.2 years (range 24 – 59 years), of whom 10 could not be contacted for telephonic follow-up interview. The 23 remaining women pledged to encourage 37 relatives/acquaintances to receive the HPV vaccine. Twenty-one of 37 potential vaccine recipients decided against vaccination, 10 received only one dose, 7 received two doses and 4 received three doses. Only six recipients were sufficiently vaccinated.

**Conclusion:**

In this study, girls and young women were motivated to accept HPV vaccines by related or acquainted adult women who received the information from gynaecologists at the time of cancer screening. Vaccine acceptance and completion rates demonstrated little interest. Reaching the target population for HPV vaccine catch-up remains problematic leading to poor coverage.

**Disease and Care Related Concerns among Women Receiving Radiation for Cervical Cancer at Charlotte Maxeke Johannesburg General Hospital**

**Introduction:**

Patient concerns relating to the diagnosis of cervical cancer and the personal and social impact of the diagnosis are well reported.

**Methods:**

A convenience sample of patients attending for radiation with confirmed carcinoma of the cervix Stage 2B to 3B were enrolled from January to June 2009 and completed a questionnaire of direct and open-ended questions, piloted on 20 patients, detailing current and future concerns.

**Results:**

Of 96 patients recruited, sixteen were excluded because of illiteracy. Forty-six (57.5%) were between 40 and 60 years of age, twenty-one (26.3%) were less than 40, and thirteen (16.3%) were more than 60. Fifty-two (65%) were Black/African, sixteen (20%) Coloured, eight (10%) Indian, and four (5%) White.
Forty-five (56.3%) had a current partner. Thirty-two (40%) were formally employed. Twenty-eight patients (35%) stated their cervical cancer was well explained, sixteen (20%) that no or little explanation was given; 5% had not disclosed their cancer to their families; 26.7% of those with partners had not disclosed the cancer to them. Symptoms causing greatest distress: for 71.9%, offensive vaginal discharge, for 54.7% vaginal bleeding; 58.3% experienced moderate to severe pain; some experienced all three. Fifteen with pain (41.7%) felt that treatment had a moderate effect, only seven (19.4%) that the treatment was very effective. Forty (50%) were sexually active before the onset of symptoms, twenty (50%) continued; 20 had stopped because of bleeding, pain or partners’ anxiety. A family history of cancer reduced hopefulness for the future (45.0%) versus those who had none (91.7%) (p<0.001). Twenty-four (75%) of those employed feared losing employment. Unanswered questions included: thirty-three (41%) wished to know if the cancer was curable, 31 (39%) wished to know what causes cancer, seven (9%) wished to know if they could transmit the cancer to their partner, four (5%) if their children would be affected. Nineteen (23.8%) consulted traditional healers before seeking help from western medicine, including 36.5% of Black/African patients.

Conclusion:

Many issues related to cervical cancer may not be discussed in depth with patients, who in turn may not discuss issues with those close to them. The high illiteracy rate (16%) limits the effectiveness of written material. Pain control is not well managed. Recourse to traditional healers is widespread.

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Long-term outcomes of women treated for high-grade squamous intraepithelial lesions at a University Hospital colposcopy unit in South Africa. A 5-year retrospective cohort study

Introduction:

Worldwide, there is a paradigm shift in the screening for cervical cancer with the use of high-risk human papillomavirus (hrHPV) molecular testing. Before South Africa adopts this technology in the public sector, health funders will need data on the performance of the current cytology and colposcopy-based programmes. This study was done to establish the baseline data on the performance of the cytology and colposcopy based cervical cancer screening programme at the Groote Schuur Hospital (GSH) colposcopy clinic.

Methods:

This study was a retrospective cohort study of all the women with high-grade squamous intraepithelial lesion (HSIL) Pap smears seen at GSH colposcopy clinic between 01 January 2010 and 31 December 2015. The outcome measures were: large loop excision of the transformation zone (LLETZ) and cone biopsy complication rates, cure rate, treatment failure and invasive cervical cancer rates. Data were managed and analysed using IBM SPSS Statistics Version 25 and Microsoft Structured Query Language (SQL) version 2014.

Results:

A total of 7601 women were referred to the GSH colposcopy clinic during the study period. HSIL or worse lesions (≥HSIL) were confirmed histologically in 74.1% (2282/3081) women. At 4-month follow-up, 61.2% (742/1213) of the women were considered cured, and 17.0% (206/1213) had persistent/residual disease. In women deemed to be cured at four months, recurrence was very low, and it peaked at ten months at 1.5% (11/740). By 24 months the cumulative recurrence rate was 4.6% (34/742). In women who had disease persistent at four months follow-up, only 0.5% (1/202) developed invasive cervical cancer. The follow-up default rate was very high, at 81% at 24 months. LLETZ and cone biopsy complication rate was 7.2% (117/1628). Log-rank analysis showed that age 35-49 years, being HIV negative, not smoking and taking highly active antiretroviral drugs were significantly associated with faster clearance of disease. All these factors were not significant after including them in a Cox-regression model.

Conclusion:

LLETZ and cone biopsy are safe procedures. After cure, recurrence rates are low. In women who are treated for HSIL, cervical cancer is very rare. There is need to mitigate on the high default rates to follow up.

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Assessment of cervical cancer screening uptake barriers and risk factors knowledge

Introduction:

Although 20 million women are eligible for cervical cancer screening in Ethiopia, only 0.003% were screened in 2017. Many factors influence this, such as: limited cervical cancer screening services (CCS), deep rooted perceived barriers and risk factors knowledge. The aim of this study was to assess perceived barriers of CCS, and correlate cervical cancer risk factors (CCRF) knowledge and barriers with socio-demographic variables among women in Adama town, Oromia, Ethiopia.
Methods:
A total of 412 voluntary women were included in this study between September to December 2017. Data was collected on socio-demographics, CCRF knowledge, barriers to screening and treatment. Descriptive statistics and bivariate analysis were conducted.

Results:
The average age of the women was 44.6 years (SD=9.3). A total of 330/412 (80.1%) and 337/412 (81.8%) women had never had a pap smear or VIA, and had not visited clinics for CCS. Screening barriers such as fear of finding cancer (90.0%); stigmatization (89.1%); “God will” (87.4%); high cost of services (61.2%); male doctors (55.3%); no self-screening service (37.4%) were the main contributors for low uptake of screening. Percentages of women who responded correctly to questions about CCRF were as follows: unprotected sex (60.4%); smokes cigarettes (59.2%); multiple sexual partners (56.1%), started sex at a young age (11.2%). The main barriers to cervical cancer treatment were uncertainty about treatment outcomes (79.6%), and no single “see and treat” approach (78.6%). Screening without formal counselling services (p=0.002, X²=16.982), poor quality of service (p=0.037, X²=10.812), self-sampling service (p=0.001, X²=18.982) were significantly associated with women’s age. CCRF knowledge was not statistical correlated with age (r=0.045, p=0.362), marital status (r=0.006, p=0.898) and previous VIA or PAP test (r=0.032, p=0.511). However, educational attainment had correlation with risk factors (r=0.094, p=0.049).

Conclusion:
Population based cervical cancer screening health education, sexual and reproductive awareness programs may be helpful to increase the uptake of cervical screening services. Voluntary counselling and self-sampling devices may encourage women to be screened.

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Outcome of patients with cervical cancer referred for treatment at Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) from Far East Rand Hospital (FERH)

Introduction:
Cervical cancer is a very common malignancy among women worldwide and in South Africa. If diagnosed earlier, an appropriate treatment can be given to patients and this will result in good outcomes. The aim of our study was to look at challenges encountered when referring patients from FERH (a secondary institution of care) to CMJAH (a tertiary center) and the overall outcomes.

Methods:
This is a retrospective cross sectional descriptive study of patients diagnosed with cervical cancer at FERH between January 2012 to December 2016. Patients files from both FERH and CMJAH were reviewed. Patients were initially seen at FERH then referred to CMJAH for continuation of care after histology confirmation of the disease. 40 files were retrieved at FERH and 33 files were found at CMJAH. A 1 year follow up after treatment initiation was also analysed.

Results:
100% of patients had cervical squamous cell carcinoma. 6.1% were at stage IB, 33.3% at stage IIIB, 9.1% at stage IIIA, 33.3% at stage IIB, 12.1% at stage IVA, 6.1% at stage IVB. The median time interval from pap smear to treatment initiation (in days) was as follow: 17(5-138) from pap smear to cervical biopsy, 42(33-65) from biopsy to biopsy results, 7(0-23) from biopsy results to CMJAH referral, 7(0-22) from CMJAH to date seen at radiation oncology, 52(37-79) from radiation oncology to treatment initiation. 6.06% of patients had surgery plus vault radiotherapy, 66.67% had radiotherapy, 21.21% had chemoradiation, 12.1% had palliative care. Overall, 6.06% of patients died, 21.21% had palliation care, 3.03% had cancer recurrence, 36.34% had cancer remission, 33.33% were lost to follow up.

Conclusion:
Our study has demonstrated that the length of time spent from the 1st presentation at FERH to the arrival at CMJAH as well as the time spent from arrival at CMJAH to treatment initiation were longer then the recommended standards. This is due to multiple factors. Patients who presented earlier had better outcome then those who presented late. Our population still need education, and awareness campaigns about cervical cancer. Biopsy results need to be fast tracked at FERH.

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A Ten Year Review of Vulvar Carcinoma at Groote Schuur Hospital with particular emphasis on HPV associated disease

Introduction:
Vulvar carcinoma accounts for about 4% of gynaecological malignancies. Historically vulvar carcinoma has been more common in older women with lichen sclerosis. In recent years it appears that there is an increase in incidence of the disease in developing countries. This is thought to be as a result of the rise in Human Papilloma Virus (HPV) infection in these populations. The aim of this study is to document the cases of vulvar carcinoma at Groote Schuur hospital, and review the patient demographics, with focus on HPV related disease.
Methods:
A retrospective descriptive review of the women with vulvar carcinoma at Groote Schuur Hospital over a ten-year period (2002-2012) was conducted. Data was collected from folder reviews and from an existing cancer database.

Results:
There were 139 patients in the cancer database. Ten of the folders were missing. Two patients with Bartholin’s gland cancer were excluded and two cases were incorrectly entered into the database. Data from 125 cases was collected from 2002-2012. 98 women (78, 4%) had vulvar cancer on the basis of HPV disease alone. This was based on pathology reports and clinical examination. Vulvar carcinoma in the background of Lichen Sclerosis was found in 18 (14, 4%) cases and dual pathology in 3 women (2, 4%). Histology was squamous cell carcinoma in 95, 2% of cases. Six women has unusual histology.

The mean age of the patients at our clinic was 54, 7 years of age. The youngest patient diagnosed with vulvar carcinoma was 21 and the oldest 92. Data on patients with HPV disease was also collected on a separate data sheet. This group comprised 101 patients. In this group HIV infection was documented in 17,8% of the patients. The remainder were HIV negative or status unknown.

Conclusion:
There is an increase in the incidence of women with HPV related vulvar carcinoma. Limited data on the subject exists and only a few studies have been conducted in developing countries.

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The Performance of Swede Score in Predicting CIN in Women Living with HIV-1 in South Africa

Introduction:
HIV infected women are referred to colposcopy with any abnormal Papanicolaou smear in South Africa. Most colposcopy clinics in SA have a “see and treat” approach where women who are referred for colposcopy are treated immediately based on the colposcopy findings. The accuracy of colposcopy is therefore important. The aim of this study was to determine the accuracy of diagnosing cervical intraepithelial neoplasia with the Swede score in HIV infected women.

Methods:
This is a secondary data analysis of the South African arm of the “HPV in Africa Research Partnership study” which compared the performance of four different screening tests for cervical cancer precursor lesions. Colposcopy was performed by a Gynaecologist or a Medical Officer on any women who screened positive with any of the tests. A four-quadrant biopsy and directed biopsies of any visible lesions were performed. The colposcopy findings were recorded using the Swede score.

Results:
A total of 577 women were included. The mean age was 34 years (SD±5.89). The median CD4 count was 427 cells/mm³ (IQR=427; range of 45-1140 cells/mm³). Antiretroviral therapy was used by 370 (64%) women. Co-infection with high risk HPV occurred in 374 (65%) women. The Pap smear was abnormal in 484 (83%), VIA was positive in 162 (28%) and VILI was positive in 219 (38%) women. Histological findings showed that 263 (46%) of the women had no CIN, 185 (32%) had CIN 1, 76 (13%) had CIN 2 and 53 (9%) had CIN 3. The Swede score of 5 had sensitivity of 72%, specificity of 71%, positive predictive value of 42% and negative predictive value of 90%. There was no statistically significant difference of the Swede score by antecedent Pap smear or by the presence of high risk HPV.

Conclusion:
The performance of the Swede score in HIV infected women was reasonable and it was not affected by the presence of high-risk HPV or antecedent Pap smear. Swede score is the scoring method of choice in predicting CIN at colposcopy.

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An Evaluation of Cervical Cancer Cases Diagnosed at a South African Colposcopy Clinic Over 13 Years

Introduction:
The public health impact of a screening programme introduced in South Africa has not yet been shown to reduce the incidence of, or deaths from cervical cancer. An important risk factor for death is a late stage at presentation. It may be that the women who present with cervical cancer within a screening programme present with early stage disease.

This study aims to describe women with cervical cancer that were diagnosed within a screened population, from April 2003 to April 2016.

Methods:
The colposcopy clinic is a “see and treat clinic”, where women with abnormal cervical cytology are referred. A LLETZ is performed...
immediately when the colposcopy is greater than CIN1 or the colposcopy is inadequate.

This was a cross sectional study using data from a database and patient files. All women provided informed consent for their data to be used.

The following data was extracted: age, parity, contraception, HIV status, cytology, colposcopy, histology and staging.

**Results:**

There were 174 women with cervical cancer included.

The mean age was 45 years (IQR 38-55), the median parity was 3 (IQR 2-4), and 64 women (36.8%) were post-menopausal. Twenty-eight (17.5%) of the women with a known contraceptive history were on hormonal contraception.

Ninety-four women (54.0%) were HIV positive. The median CD4 count was 329 cells/mm3 (IQR 177-502).

One hundred and fifty-six women (89.7%) were referred with at least HSIL/ASC-H. The colposcopic diagnosis was CIN2 or worse in 148 women (85.1%).

The most frequent histological subtype was squamous cell carcinoma (147 women, 85.1%), and adenosquamous carcinoma was second (7 women, 4.0%).

The presenting FIGO stage was 1A in 63 women (36.2%), 1B in 52 (29.9%), 2A in 5 (2.9%), 2B in 25 (14.4%), 3 in 14 (8.1%) and 4 in 2 women (1.1%).

**Conclusion:**

Almost 70% of women in this study presented with FIGO stage 1A -2A disease, which is associated with a 5-year survival of at least 68.8%. This contrasts with the late presentation that occurs in developing countries. There may be benefit in that women diagnosed through a screening programme have earlier stage disease.

**Methods:**

This was a retrospective study over a 10 year period of women with a histologically confirmed diagnosis of uterine carcinosarcoma managed with the three modalities at CMJAH. Survival estimates/graphs were calculated using the Kaplan-Meier method. Chi squared test was used to assess the relationships between groups, demographic and clinical characteristics, staging, morphological appearance of carcinosarcoma.

**Results:**

A total of 32 women met the inclusion criteria for the study. The mean age was 63.34 years (SD±8.65). Total Abdominal Hysterectomy(TAH) & Bilateral Salpingo-Oophorectomy(BSO) was done in 12 (37.50%) and TAH/BSO/Lymphadenectomy (LND) & Washings in 2 (6.25%) women and the remainder had other procedures. There was no statistical association between survival after treatment and uterine size (p=0.638), ECOG status (p=0.571), lymphovascular invasion (p=0.687), treatment with radiotherapy (p=0.202) and recurrence period of disease.

Recurrence of the disease was common after 12 months and the commonest site was the vault. The mean survival from surgery was 15.5 months (SD± 88.79). The women who had never smoked cigarettes had 20% (Pearson Chi²(8) = 18.20, p=0.02) chance of surviving for more than 12 months after treatment (surgery and/or radiotherapy). Women of African race were 4 times (Pearson Chi²(8) = 26.00, p=0.001) more likely to survive for more than 12 months after treatment than both white and coloured women.

There was no survival difference between women who were treated with surgery alone, and those who received adjuvant radiotherapy. However, women who received radiotherapy suffered adverse effects such as desquamation, diarrhoea, urinary incontinence and VVF. Over sixty percent (66%) of women died from complications of disseminated disease/malignancy.

**Conclusion:**

Treatment with radiotherapy or chemotherapy after surgery offers no survival benefit. The role of nuclear medicine modalities such as Targeted Alpha Therapy (TAT) in carcinosarcoma has not been well explored and may offer better outcomes.

**The Outcome of Patients with Uterine Carcinosarcoma**

**Introduction:**

The study aimed to determine the outcome of women with uterine carcinosarcoma who were treated with surgery alone, surgery and adjuvant irradiation, or surgery and adjuvant chemotherapy at Charlotte Maxeke Johannesburg Academic hospital(CMJAH).
countries in sub-Saharan Africa. The additional challenge is the epidemic of Human Immunodeficiency Virus infection (HIV). The aim of this study was to report five-year overall survival in a prospective cohort of HIV-positive and -negative cervix carcinoma patients undergoing radiotherapy, from a single institution in South Africa.

**Methods:**

Prospective cohort study of all locally advanced cervix carcinoma patients attending for radiotherapy from July 2007 to November 2011. Data collected included demographics, clinical characteristics and treatment parameters. Overall survival (OS) was the primary end-point of this study.

**Results:**

All patients with the intent to treat of over 40Gy EBRT were included, a total of 492 patients. The cohort included 71 HIV-positive patients (14.4%) and 421 HIV-negative patients (85.6%). In the cohort, 433 were prescribed standard fractionation EBRT of which 384 patients were prescribed concurrent platinum-based chemotherapy (88.7%). Significantly fewer HIV-positive patients were able to complete a minimum of 4 cycles (58.5% vs. 76.1%; p=0.007). HIV-negative patients had an OS of 55.1% and 49.2% at 2- and 5-years. For HIV-positive patients OS was significantly lower at 42.3 % and 39.4%, at 2-and 5-years, compared to the HIV-negative patients (p=0.02).

**Conclusion:**

This prospective cohort study of nearly 500 patients with locally advanced cervical cancer demonstrates a significant difference in overall survival of HIV-negative compared to HIV-positive patients. Factors affecting outcome include stage of disease, HIV status and the delivery of concurrent chemotherapy.

*Presenters:*

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**X-pert™ HPV Screen and Treat for cervical cancer in South Africa**

**Introduction:**

Cervical cancer is both preventable and curable if diagnosed early. The initiation and sustainability of cytology-based screening programmes have failed in the majority of developing countries. Screen and Treat strategies for cervical cancer prevention have been recommended for low and middle income.

**Methods:**

By altering the Ct threshold for a positive test and eliminating two of the five channels for detection of hrHPV in the Xpert HPV assay, we were able to raise specificity of HPV DNA testing without compromising on sensitivity for CIN 2/3 in both HIV positive and negative women in phase 1 of the study.

In phase 2, we have currently enrolled 2121, women aged 30 – 65 years. All women underwent a clinician taken sample and performed a self -sample for HPV testing. Women who fulfilled our eligibility criteria (using a predetermined Ct threshold for the three selected channels) and were suitable for ablative therapy were treated with thermo-coagulation. All HPV positive and 10% random sample of the HPV negative women were scheduled for 6 and 12-month follow-up. At follow-up, all the women underwent HPV testing, colposcopy and a sample for histology.

**Results:**

Of the 2121 women enrolled (1242 HIV-negative and 879 HIV-positive), ages 30-65 years. HPV test was negative in 1521 (71.7%) and positive in 599 (28%). Of the HPV positive, 375 (62.5%) met our new Ct cut-off criteria for treatment of which 346 (92%) were considered suitable for ablative treatment. 323 (93%) had thermocoagulation procedure done on the same day. The majority of women found the procedure of thermo-coagulation tolerable

Among women treated with thermocoagulation, 11 were diagnosed with histological HSIL. Of the 46 women who were HPV positive but not eligible for treatment 3 were diagnosed with CIN 2 and 2 with CIN3. One case of CIN 2 was observed in the HPV negative group.

**Conclusion:**

These preliminary data using a point of care test for the diagnosis and prevention of cervical cancer indicate that this may well be an easily implementable screening algorithm, allow improved coverage of the target populations and ensure that cervical cancer prevention can be integrated into primary care health structures.