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A Pilot Study Report of the Perceptions and Practice of Cervical Cancer Screenings in The Bahamas. Looks Aren't Everything

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Introduction: In The Bahamas cervical cancer is the second most common cause of cancer deaths among women. National data indicates that less than 10% of threat risk population of an estimate 100 000 woman submits to an annual cervical screening programme.

Objectives: The study was to describe the state of cervical cancer screening and treatment activities in The Bahamas and correlate them with the knowledge attitudes and behaviour of the target female population.

Methodology: General practitioners and nurses were randomly selected as interviewers and assigned to primary healthcare centres on three of the most densely populated Bahamian islands. The interviewers were calibrated in order to attain a standard knowledge base. One hundred and four women across the three islands between the ages of 24 to 54 were interviewed.

Results: The results indicated that of the test groups had some knowledge of the Pap smear and 6.5% had no knowledge at all. Ninety-nine per cent of those who knew about the Pap smear knew that it had to be done in sexually active women and 91.3% knew that it should be done in menopausal women. 78.4% of women thought that it should be done annually. 9.8% indicated that they thought it should be done only every three years. 88.5% reported having had a Pap smear at some part of their lives with 45.7% having had one within the past year and 39.1 having had one within the past three years. 15.2% having had their last smear over three years ago. Forty-one per cent of those who had never had a smear admitted to being scared of the smear. 68.1% of the smears were done in private clinics and 20.9% done at the government clinics. 96.5% were satisfied with the treatment they received at the government clinics.

Conclusions: The author drew the conclusion from the preliminary data that more education is needed in particular to be targeted at young women whilst still at school. There appears to be a fear about the Pap smear in the Bahamian

women. The wrong messages may be sent down from mother to daughter in the most vulnerable members of our society. Further analysis of the data is necessary to understand the needs of the different age group, within Islands and ethnic groups. This will certainly lead to a Government/Private partnership: will they listen? A National oversight group may help in this regard.

Breast Reduction in The Bahamas

G Neil

Ninety consecutive patients who had a modified Passot (no vertical scar) breast reduction technique are presented. At least three authors have reported variations on this technique in recent times. Additional modifications for ease of dissection and breast shaping are outlined. All cases presented were done by the reporting surgeon.

Study population: All patients had symptomatic breast hypertrophy. No smokers were identified within the patient population. Age ranged from 17 to 65 years. Follow-up ranged from one to five years.

Study design: a retrospective review of all patients' charts and medical record was carried out. Data including age, height, weight, co-morbid conditions, brassiere size, sternal notch to nipple distance and inframammary fold to nipple distance were tabulated. Weight of breast tissue resected was recorded in the operating room and later correlated with pathology reports. No free nipple grafts were performed.

Results: Patient's weight averaged 195 pounds with a range of 121 to 310 pounds. Average sternal notch to nipple distance was 38.7 centimeters with a range of 29 to 56 cm. Amount resected from a single breast averaged 1565 g with a range of 420 to 4899 g. Drains were kept for an average of six days. Fixation to the chest wall was performed with number one PDS sutures and coning of the internal brassiere was done utilizing 2-0 Prolene. Excellent maintenance of breast shape and projection was seen in all cases with minimal or no bottoming out up to five-years.

Major complications: one patient (1%) had partial areola loss with retraction of the remaining nipple areola complex. Five (5%) patients had tissue loss in the region of the inframammary fold. Of these five patients, three had moist

dressings and two were returned to the operating room in the perioperative period for debridement and closure, converting them to a vertical scar technique. One (1%) patient was returned to the operating room for hematoma evacuation with closure. As a subset, 32 patients (36%) had sternal notch to nipple distance in excess of 40 cm. Three of the seven major complications outlined in this section belonged to this group.

Minor complications: liquefied fat necrosis or seroma requiring aspiration or replacement of drains (7%); superficial de-epithelialization or minor wound separation treated with moist dressing or Band-Aids (10%); hypertrophic scarring requiring depot steroid injections (3%); calcific steatonecrosis requiring excision or liposuction under local anaesthesia (2%); and palpable subcutaneous suture (2%).

Conclusion: A technique for breast reduction is described which utilizes a wide-based pedicle, coning with sutures and chest wall fixation to predictably determine breast shape and prevent “bottoming out”. The procedure is particularly suitable for those with moderate to severe breast ptosis and can be applied to breast reduction as well as mastopexy. Elimination of the vertical scar provides an additional benefit, particularly in those prone to hypertrophic scarring. Although the technique can be modified to incorporate free nipple graft, the use of this technique significantly reduces the need to resort to free nipple graft even in cases of severe breast hypertrophy.

Cervical Cancer Screening and HPV Types in HIV-Infected Women in Bahamas: A Pilot Study

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Introduction: HIV-infected women in resource-limited settings are in serious need of cervical cancer screening as they are living longer due to antiretroviral therapy, but nonetheless have a high risk of cervical neoplasia. To evaluate the usefulness of various screening modalities for HPV-induced cervical cancer in HIV-infected women, we conducted a pilot cross-sectional study in Colposcopy Clinic at Princess Margaret Hospital.

Methods: We screened 37 Bahamian HIV-infected women with both liquid-based cytology and visual inspection with acetic-acid (VIA). Visual inspection with acetic-acid was performed by Dr Butler who underwent a two-week long competency based training using standardized educational material given by Dr Parham. We also screened them with liquid-based cervical cytology. We used the Roche linear array PCR to determine presence of 37 specific HPV types in cervicovaginal samples. We correlated the cytology test results with the total number of HPV types present in each sample.

All participants were examined by colposcopy and histological confirmation was obtained when indicated. In our preliminary analysis, pending results of histology, we correlated the screening test results of VIA against cytology.

Results: A The median age of study participants was 36 years (range 23–49) and their mean CD4⁺ count was 209/ μ l. 28/37 (75.6%) women had evidence of any (low or high grade) squamous intraepithelial lesions (SIL) on cytology, while 20/37 (54.0%) women had evidence of high grade SIL. 17/37 (45.9%) women were found to have aceto-white lesions on VIA. The level of concordance between test results of VIA and cytology (high grade SIL threshold) was 0.36 (95% CI: 0.21 to 0.51, $p < 0.001$).

Results: B The mean CD4⁺ count was 209/ μ l. Although 36 of the 37 detectable HPV types were present, the most common were: HPV types **52** (38%), **61** (26%), **62** (26%), **58** (23.3%), **53** (20%), **84** (18.7%), **35** (18%), **81** (18%), **16** (17.3%) and **45** (17.3%). A comparison of test results of cytology and number of HPV types per sample is shown below:

ASCUS	Cytology results			
	Normal/	Low grade	\geq High grade SIL	
0 HPV type	1	0	0	1 (2.7%)
1 HPV type	1	0	2	3 (8.9%)
2-5 HPV types	6	4	11	21 (56.2%)
\geq 6 HPV types	1	4	7	12 (32.2%)
	9	8	20	37

[Pearson chi-squared test of significance: $p < 0.05$]

Conclusion: A Pending the results of histology, which will allow direct comparison between the accuracies of VIA and cytology, it appears that VIA holds promise as a cost-effective alternative or adjunct to cytology for screening HIV-infected women in resource-limited settings.

Immediate treatment without loss to follow-up is an advantage with VIA, should screening efficiency prove to be acceptable.

Conclusion: B Infection with multiple high risk HPV types was associated with higher risk of cervical cytological abnormalities. Almost one-third of the HIV-infected Bahamian women had \geq 6 HPV types identified by the assay. Additional studies with long-term follow-up are necessary to determine significance of these findings.

A larger study is being considered as we speak to try and answer this question. Two DM candidates are presently getting the funding and with an appropriate powered study we will be able to address this question.

HLA-phenotypes in Type I Diabetes Mellitus in The Bahamas*

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Background: Type I Diabetes Mellitus (T1DM) is a complex genetic disorders in which multiple susceptibility genes interact with environmental factors to initiate or modify immune B-cell destruction.

Current results show the risk for developing T1DM is about 70% for a monozygotic co-twin of a patient and about 10–15% for dizygotic co-twins.

The HLA region, Human Leucocyte Antigen, also known as the Major Histocompatibility Complex (MHC) is a cluster of 200 known genes on the short arm of chromosome six

The MHC is divided into 3 Regions:-

Class I Encodes genes for classic transplantation antigens

Class II Immune response genes- herein are T1DM

susceptible genes Class III these genes include TNF and complements

HLA phenotype in Caucasian patients has shown susceptibility to T1DM with the following alleles:

DR3-DQ2

DR4-DQ2

And there is protection with DR2-DQ6.

We previously showed that The Bahamas has the highest incidence of T1DM worldwide in people of African origin, 10.1/100 000, three times that of Barbados.

Highest incidence worldwide is in Finland and Sardinia 50/100 000. We postulated that there is a putative genetic factor.

Aim of study: To determine HLA-Phenotype in our cohort of T1DM and non-diabetic controls.

Methods of Patients: Patients with T1DM were chosen prospectively and consecutively and blood was drawn for HLA phenotyping. Subjects without T1DM were chosen in a similar manner and comprised the controls. The blood samples were analysed using the standard microlymphocytotoxicity method by QUEST Laboratory, California.

Results: 35 patients with T1DM Male 18

Female 17

Age Range 4-24yrs Mean Age 12.3yrs

17 controls

Male 8

Female 9

Age Range 4-28 yrs

Mean Age 16.3yrs

Conclusion: There is a high frequency of DR4 and DQ2 in T1DM. In controls DQ6, DQ5 and DR2 appear to be protective alleles.

DR17 is strongly associated with T1DM in The Bahamas.

Human leucocyte antigen phenotypes for patients and controls

HLA	Patients n = 35	Percentage %	Control patients n = 17	Percentage
DR2	4	11	7	41
DR3	14	40	7	41
DR4	29	82.8	8	47
DR17	12	34	1	5.8
DQ2	24	68.5	7	41
DQ3	7	20	0	0
DQ5	3	8.5	6	35
DQ6	2	5.7	6	35
DQ8	4	11	1	5.8
DR2DQ6	1	2.8	4	23.5
DR3DQ6	7	20	1	5.8
DR4DQ2	21	60	6	35
DR17DQ2	11	31	1	5.8

*Abstract presented in 2007 and 2009