



St. Albert's Mission Hospital
Mashonaland Central Province
ZIMBABWE

**Visual Inspection with Acetic Acid and
Cervicography (VIAC) Based Cervical Cancer
Screening and Management.**



Introduction:

Increasing incidence of cancer of cervix and breast and lack of well developed screening programme has lead many organizations work for a screening programme in developing country. We have to keep in mind screening programme is only secondary prevention of cancer of cervix.

Primary prevention consists of vaccination and **abstinence** at least before the age of 20 and having one sexual partner. **Condom is not as effective, as HPV virus** lives in the skin cells covering the pubic area as well as the interior cells lining the vagina, cervix, urethra anus in both sexes. **Change of sexual behavior** and **abstinence** etc is a broad issue involving education, family background and culture etc.

It is now imperative to think about **vaccine**. This is effective way to prevent HPV infection when given before the first sexual intercourse. There are two types of vaccine available against oncogenic HPV

1. Bivalent (Cervarix)
2. Quadrivalent (ordasit)

It should be kept in mind that they are prophylactic not therapeutic measure. We would like to start vaccination of girl child below the age of 10 years as soon as our project is ready to take off.

For **secondary prevention**, that is **screening programme**, we need to consider certain parameters. Screening programme should be cost effective and have easily available.

Specificity and sensitivity compare to PAP smear shows that being an easy and cost effective screening method- it is definitely a better method for large scale community screening programme in developing world.

Another important point to consider is super qualified persons are not needed. After basic training one can easily do the screening in rural areas. Of course "Quality Control" is essential.

The screening programme should involve all sexually active women. That is what we dream for our District, Province and Country. How far we can reach is yet to be seen.

We have started screening all who come to us with special attention to HIV positive women and those who have any gynecological symptoms.

Patients are given appointments. Early morning the groups of patients are given "talk" explaining what is cancer, what is VIAC, what is involved, how diagnosis of pre-cancerous lesion is made and its management. Those who have negative result they are given one year follow up appointment for HIV positive women and three years for HIV negative.

After the screening they are recorded in Registers as well as in computer. Computer also has album of cervicogram. Patients are given appointment card with result clearly noted. Therefore lot of paper and computer work is involved. Any suspicious case is seen by Gynaecologist /

Doctor same day. Rest of cervicogram is reviewed once a week by Doctor – what we call “Quality Control”. Those patient who need cryocautery, biopsy, cone biopsy and other therapy are called back to see Doctor.

Lesions are classified into three groups:

1. Negative
2. Positive
3. Suspicious

It is not difficult to get detail information and logic behind cervicogram through internet. However we felt some information might help our friends, well wishers and patients to understand patho-physiology of early diagnosis with Acetic Acid application.

Endo cervix is lined with columnar epithelium and ecto-cervix is lined with squamous epithelium. Metaplasia occurs at squamous columnar junction. Mutation can occur in the transformation zone because of high mitotic rate. This can be spontaneous or easily induced by carcinogens such as HPV or smoking. This, if not cleared by immune system, can become neoplastic.

These neoplastic or precancerous cells have particular characteristics. They have bigger nuclei (evidence of increased mitosis) and less cytoplasm. Acetic acid denatures the protein which clumps. It also dehydrates the cells. As light cannot penetrate these dense cells they are reflected back to us and appear white.

Precancerous lesion occurs in transformation zone and this is where abnormal white areas are seen. Currently there is no classification of lesion based on VIAC.

Treatment

VIAC does not need a Doctor to perform the procedure. But if it is positive, suspicious of malignancy or inconclusive patient must be seen by a Doctor or Gynaecologist.

VIAC is meant for early diagnosis of cancer cervix. However many other conditions of female reproductive organ can be diagnosed and treated. Chronic cervicitis, pelvic inflammatory disease, symptomatic cervical polyp etc are examples.

Here I would like to mention a case. A lady 45 years old HIV positive on ARV came with history of bleeding per vagina on and off. VIAC was negative. But Doctor had some suspicion about endometrial carcinoma. Under anaesthesia, Dilatation and Curettage was done. Histology of curetting showed adenocarcinoma of endometrium. She is for hysterectomy on 22/01/2014.

Cryotherapy or cryocautery: In this procedure precancerous cells are destroyed by cold coagulation using ice-cold gas. Carbon dioxide destroys the cell up to a depth of 3mm and nitrous up to the depth of 5mm. Advantage of cryotherapy:- it is done as Outpatient procedure and client can go home same day. Disadvantage is no

histological specimen is obtained but this is overruled by the fact that it has more than 95% primary cure rate.

Cryotherapy is done when acetowhite lesion is well defined in the transformation zone and covers less than 75% of the area and lesion is not extending to endocervix. Procedure is simple and repeat VIAC is done after 6 months.

LEEP (Loop Electrical Excision Procedure): It has an electrical wire which passes through transformation zone. It removes the affected tissue of transformation zone which are sent for histology and margin of excision is coagulated causing minimal bleeding. It is advised when lesion is more than 75% and / or extending into endocervix.

Biopsy: is taken for any suspicious area and sent for histology.

Electro-cautery: can be done where available. But it needs anaesthesia. In this case abnormal areas are destroyed by burning.

Cone Biopsy: when cone shaped tissue of endo and ecto cervix is taken and sent for histology indication being same as in the case of LEEP. Bleeding can be controlled by suturing or by electro-cautery. It is very useful when exact margin needs to be examined histologically. It can be done in place of LEEP.

Suspicious Group: we can actually say that this group is group of patient with suspected carcinoma. It is named suspicious group as it is not confirmed with histopathology when VIAC is done. This is our problem group. Many of them need to be referred to Central Hospitals for Radical Hysterectomy, Radiotherapy and /or chemotherapy. Most of our patient cannot afford to go to Harare. On the other side, facilities at higher level are not adequate. Though recently some improvement has occurred.

Many clients also come in late stage where only treatment is palliative care of symptoms.

At this point, certain issues need to be considered:

- a) VIAC is free, that is any client can walk in and get examined without any payment. In urban areas patients can easily have access to a clinic where they can have examination done. In rural areas to have the access to hospital where VIAC is done **means busfare** etc. therefore starting the VIAC in a peripheral clinic is very welcome to screen larger population.

However that is not the only financial barrier for the poor people.

- (i) Many patients who are VIAC negative have **chronic cervicitis and need antibiotics**. So that VIAC can be repeated after 6-8 weeks. Many return without purchasing the drugs. We have suggested they should report back to us even if they cannot buy

drugs. At least VIAC can be repeated after 5-6 months even if they are HIV negative and no treatment has been taken.

- (ii) We planned to do some PAP smear to have some comparative figure. Not even one PAP smear was done because of financial constraint of the patients. Moreover it is now being discouraged by WHO.
- (iii) Operative procedure like cryotherapy, electro-cautery, biopsy, cone biopsy and hysterectomy all need some finances which many times our patients cannot afford.
- (iv) In central hospitals again investigations and other protocol before starting the treatment is too burdensome for majority of patients and they stop the process halfway through. It may be noted that Radiotherapy is very inadequate at the moment. We think it is gradually improving.

Please nobody should imagine these financial difficulties are mentioned for requesting more financial help for the project. No, our intention is to draw attention to the background where we are implementing our programme.

The great need of well organized VIAC screening programme will definitely reduce the heart breaking incidence of advanced carcinoma cervix. Second or more important method of prevention is vaccination. We are so grateful to all those who are helping us with VIAC and thinking of HPV vaccine.

There was official launching in Bulawayo for VIAC. It was launching the programme which we have already started! We need more interaction with other provinces, central hospitals, UNFPA and Ministry of Health and Child Care. We are organizing and will keep you informed.

Now that we have the knowledge to run the VIAC programme, we are determined to update ourselves by communication with other stakeholders regularly.

Thanking you

Signed by:

Dr Neela Naha

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VIAC Team

Sr Angeline Bowman	(Sister In Charge – VIAC Services)
Sr Molline Kangundu	(Away on study leave for one year)
Sr Ronicah Mushaninga	(Matron)
Sr Loveness Chabaya	(Registered General Nurse)
Sr Ephiness Zengeya	(Registered General Nurse)
Sr Itai Wankis	(Primary Care Nurse)
Mr Joseph Makaza	(Health Information Officer)

Summary of V.I.A.C. Statistics

	HIV Positive	VIAC Negative	Suspicious
HIV positive	18	205	3
HIV negative	4	684	5
Unknown	0	11	0

Comments:

Unknown HIV status: Sometimes cases are referred from ward before HIV testing. This was more in the beginning of the programme.

Suspicious cases: (8 cases) It is very difficult to follow up the patient. Even biopsy results are delayed.

a.i.a.1) Three (3) cases referred to Harare (all three HIV positive)

(a.i.a.1.i) One had biopsy squamous cell carcinoma. We have follow up news.

(a.i.a.1.ii) Biopsy was done before she came to us. CIN II VIAC positive and hysterectomy was done.

(a.i.a.1.iii) Patient was from Harare lost to follow up.

a.i.a.2) Two (2) cases VIAC Positive- (all HIV negative) Biopsy no evidence of malignancy.

a.i.a.3) One (1) HIV negative VIAC Positive- biopsy done and was advised to repeat.

a.i.a.4) Two (2) HIV negative- awaiting biopsy report.



VIAC NO 38

AGE 40

PARITY 5

HIV NEGATIVE

VIAC RESULT:- NEGATIVE



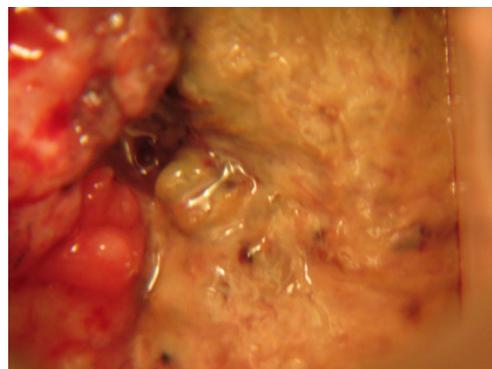
VIAC NO 192

AGE 42

PARITY 3

HIV NEGATIVE

VIAC RESULT:- POSITIVE



VIAC NO 187

AGE 35

PARITY 2 HIV POSITIVE

VIAC RESULT:- SUSPICIOUS CANCER