

CURRENT TREATMENT OF CERVICAL CANCER IN NIGERIA

**DR. RICHARD A. OFFIONG BM,CHB(JOS), FWACS,
FICS**

CHIEF CONSULTANT OB/GYN

**DEPARTMENT OF OBSTETRICS AND
GYNAECOLOGY, UNIVERSITY OF ABUJA
TEACHING HOSPITAL, ABUJA, NIGERIA**

INTRODUCTION

- **Cervical cancer(CC) second most common malignancy in women globally, and the leading cause of cancer deaths in women in most developing countries including Nigeria**
- **Well organized early detection programs coupled with effective treatment modalities, have reduced deaths from CC by up to 70% in developed countries**
- **Attainment of similar results in Nigeria and other SS Africa countries hampered by insufficient funds often attributed to competing health priorities, weak health systems and limited numbers of trained providers**

BURDEN OF CERVICAL CANCER IN NIGERIA

- **Available data indicates CC age standardized incidence of 33/100,000 with an estimated 14,943 new cases diagnosed annually and 10,403 deaths**
- **Absence of an organized system of screening precludes early detection and treatment of precancerous lesions on a large scale, resulting in 80% of the cases presenting with advanced invasive disease**
- **Late presentation at the health facility has long been associated with poorer prognosis and reflects in significantly high case mortality rate \approx 25% for CC**

WHY DO THE WOMEN PRESENT LATE FOR TREATMENT?

- **Ignorance**
- **Poverty**
- **Stigma**
- **Absence of a national screening program for CC**
- **Poor utilization of available services**
- **Patronage of traditional medical practitioners/herbalists**

CC BURDEN VS. CAPACITY OF HEALTH CARE FACILITIES

- **Available services for the treatment of premalignant and malignant lesion in Nigeria grossly inadequate**
- **Electrosurgical excision procedures such as LEEP/LLETZ, Cold coagulation, and Cryotherapy for the treatment of premalignant lesions are available only in a few centres and are largely in their infancy**
- **Similarly, only few certified Gynaecologists have the capacity to perform radical surgery for the treatment of cervical cancer**
- **Radiotherapy is available in 10 centres all over the country with 2 machines on the average functional at any given time**

ABLATIVE TECHNIQUES FOR PREMALIGNANT LESIONS (GWAGWALADA)

- Ablative therapy in the form of LEEP/LLETZ, Cold coagulation, Cryotherapy is the standard of care
 - Recently introduced at our hospital but still in its infancy
- Over the past one year:
- 260 colposcopies (average of 6 a week)
 - 15 LLETZ procedures
 - 25 cold coagulation procedures
-
- Challenge in supply of loops and ball point electrodes being addressed to ensure sustainability of the service.

HYSTERECTOMY FOR PREMALIGNANT LESIONS

- **Total abdominal hysterectomy commonly employed in the treatment of high grade premalignant lesions in the absence of standard treatment modalities**

- **Eleven out of 88 (7%), 43 out 253(17.1%) and 13 out of 67 (19.4%)- total abdominal hysterectomies were done for high grade premalignant lesions at different periods in Kano, Benin and Gwagwalada (unpublished),respectively**

FMOH ROAD MAP FOR THE CONTROL OF CC IN NIGERIA (2017-2021)

- **The FMOH had adopted the ‘screen and treat approach’ (VIA/ VILI followed by on the spot treatment with e.g cryotherapy), at the PHC and secondary health care level to be implemented by PHC workers**
- **LEEP/LLETZ procedure will also be made available at the secondary and tertiary levels for implementation by trained medical officers and gynaecologists**
- **Plans in top gear to roll out on a large scale in 2020**

FIGO STAGING (SUMMARIZED)

Stage	Description
I	Confined to the cervix (disregard extension to corpus)
II	Beyond the cervix but not as far as pelvic wall or lower 1/3 of vagina
III	Extends to pelvic wall or lower 1/3 of vagina, hydronephrosis or N/F kidney, pelvic &/or paraaortic lymph nodes
IV	Bladder or rectal involvement or distant metastasis

RELEVANCE OF CLINICAL STAGING

- **Evaluation of the patient for extent of disease, is a prerequisite for offering stage - appropriate treatment**
- **Tools employed include, EUA, cystoscopy, proctoscopy, IVU, USS, CT, MRI, PET etc, according to local resources**
- **In most of our tertiary centres , EUA/ biopsy and histological confirmation is done, plus haemogram, HIV sreen, LFT, RFT, abdominal and pelvic USS, CXR, IVU**

PRE INVASIVE AND PRECLINICAL STAGES OF CC

- Pre-invasive : CIN I, CIN II, CIN III

- Pre- clinical cancer: Stage Ia

Cancer confined to the cervix and identified only microscopically, with stromal invasion max. depth < 5mm

Ia-1 (< 3mm depth)

Ia-2 (\geq 3mm and <5mm depth)

- Frank stromal Invasion : stages Ib to IV

Ib Any cancer greater than Ia-2 whether seen clinically or not (\geq 5mm depth)

Ib-1: invasive tumor <2cm Ib-2: Invasive tumor \geq 2cm and <4cm

Ib-3: Invasive tumor > 4m in greatest dimension

TREATMENT OF CERVICAL CANCER BY STAGE

Level	Stage	Treatment
pre clinical disease	Ia-1	Cold knife cone or Simple hysterectomy
Early disease	Ia-2 to IIa	Radical hysterectomy or Radiotherapy
Advanced disease	IIb to IVa	Chemo-radiation

TREATMENT

- **Cold knife cone for pre-clinical disease may be adequate treatment if patient wants to preserve fertility**
- **Radical hysterectomy involves removal of uterus, parametria, 1/3 of proximal vagina, uterosacral/cardinal ligament complex, local vascular and lymphatic supply and LNs-pelvic and paraaortic**
- **Radical radiation therapy involves brachytherapy for primary disease and external beam to treat pelvic lymph nodes**

TREATMENT

- **Survival and recurrence rates similar for both surgery and radiation therapy. Choice of treatment depends on age, fitness for surgery, availability of radiation facilities.**
- **Surgery preferred in the young to obviate compromise of ovulatory and sexual function & slight risk of radiation carcinogenesis**
- **Chemo-radiation involves: concurrent external beam radiation with platinum-based combination chemotherapy; followed by intracavitary radiation.**

HOW IS RADIATION GIVEN?

- **Aim is to administer a lethal dose of radiation to tumor cells with minimal damage to the surrounding tissues**
- **First, external beam radiotherapy (tele-therapy) - shrinks the primary tumor and treats the regional lymph nodes. 50 Gray of radiation total dose is administered over a 5-week period at 2 Gray/day from the linear accelerator machine**
- **Second, is internal radiotherapy (brachytherapy) - cesium, radium or selenium administered using after-loading technique. Rods which will carry the radiation source are first inserted into the uterus and then attached to the radiation source, so patient receives carefully calculated doses of radiation in isolation (21 Gray delivered in sessions at 7 Gray per session over 3-4 weeks)**

COMPLICATIONS OF RADIOTHERAPY

- **GIT- proctitis, diarrhoea, rectal bleeding, bowel obstruction, peritonitis, RVF**
- **Urinary system- cystitis, bladder ulceration, VVF**
- **Genital system- Flare up of PID, vaginal stenosis, dyspareunia, premature menopause**
- **Skin- Sun burn-like reaction, erythema, subdermal fibrosis**

LOGISTIC CHALLENGES OF TREATING ADVANCED CC (RADIOTHERAPY)

- **Availability**

International atomic energy recommends one radiotherapy machine per 250,000 population, but only 10 in Nigeria with a projected population of 200million grossly insufficient

Some centres have capability for only brachytherapy or teletherapy

- **Affordability**

Direct cost : N600,000 per course of teletherapy plus approx. N150,000 for pre-treatment evaluation in the FCT

Indirect cost :Travel , boarding / admission - depending on distance from place of domicile and duration of treatment.

- **Accessibility**

Waiting time of two to six months and could be compounded by equipment breakdown

LOGISTIC CHALLENGES CONT'D

- **Ninety percent of patients that present at our centre get referred for radiotherapy/chemoradiation but less than 10% return with a feedback**
- **A Study from Zaria (1999-2003) in which treatment of 70 cases was reported revealed that as a result of logistic challenges only 21.74% of the patients completed their treatment**
- **Default from treatment was as high as 69.57% and this was attributed largely to lack of funds to pay for treatment**
- **Invariably, patients lost to follow up, eventually die at home and data of their mortality goes unrecorded**

CHALLENGES OF RADICAL HYSTERECTOMY

- **Extensive procedure**
- **Requires trained and experienced surgeon**
- **Strict Pre operative preparation and postoperative care**
- **Risks of prolonged anaesthesia**

- **Complications- hemorrhage, sepsis, thromboembolism, lymphocyst formation, pelvic denervation, fistulae, massive adhesions**

TREATMENT OF RECURRENT DISEASE

Recurrent
disease(initial
surgical treatment)

- Radiotherapy

Recurrent
disease(initial
radiotherapy)

- Pelvic exenteration if recurrence central
- Involves removal of uterus, tubes, ovaries, vagina, bladder, distal ureters, rectum, sigmoid colon, pelvic floor muscles, supporting ligaments

Palliative Care

- Palliative radiation- external beam or intra-cavitary
- Cisplatin - based chemotherapy
- Both for purposes of pain relief and control of bleeding

BIG QUESTION: WHO PAYS?

- **Patient ***
 - **Family ***
 - **Employers ?**
 - **Society ?**
-
- **National Health Insurance scheme at the moment does not cover cancer treatment.**
 - **Way forward would be to review this policy in line with the global drive for universal and equitable health coverage**

PROGNOSIS (USA)

Stage	5-yr survival rate(%)
I	85-90
II	60-75
III	35-45
IV	15-20

CONCLUSIONS / RECOMMENDATION

- **Invasive cancer of the cervix is BEST PREVENTED as treatment of invasive disease is extensive, complicated, expensive and often unrewarding**
- **Developing countries like ours must adopt an ORGANIZED national screening strategy and promote the use of the HPV vaccine**
- **Governments and funding agencies should devote more funds for prevention, early detection as well as treatment, if we must achieve huge reduction in cervical cancer mortality and the indignity associated with the disease**

REFERENCES

1. **Federal Ministry of Health. National strategic plan for prevention of cancer of the cervix in Nigeria, 2017-2021**
2. **ICO/IARC information centre on HPV and Cancer. Nigeria Human Papillomavirus and Related Cancers, fact sheet, 2018**
3. **Rabiu A, Habib R. Elective abdominal hysterectomy: Appraisal of indications and complications at Aminu Kano Teaching Hospital- An 8-year review. TJO&G 2017, Vol. 34 (3):224-228**
4. **Oseki C, Osaikhuwomwan J.A. Review of indications and outcome of abdominal hysterectomy at a tertiary facility in southern Nigeria. NNJCR 2018, Vol.7(1):21-24**
5. **Sule T.S. Shehu MS. Cervical cancer management in Zaria, Nigeria. Afr. J. health Sci. 2007, VI14:149-153**