

# PRACTICE POINTS

## Breast cancer guidelines for Uganda

### The Uganda Breast Cancer Working Group

#### INTRODUCTION

Breast cancer in Uganda is the third commonest cancer in women coming only next to cancer of the cervix and Kaposi's sarcoma. The incidence of breast cancer in Uganda has doubled from 11:100,000 in 1961 to 22:100,000 in 1995. Unfortunately the cases are often seen in late stages thus the outcome of treatment is inevitably unsatisfactory. The present day knowledge of this disease does not have any effective primary prevention. It is thus imperative that efforts should be made to detect the disease in its early stages. Mammography has been found to be useful but it is not applicable as a means of mass screening in Uganda (there are only 2 mammography units in Uganda. Public education towards Breast Self Examination (BSE) should be propagated because it is practical and affordable.

#### **Objectives of the Uganda breast cancer guidelines committee:**

The objective is to improve the quality of life of the breast cancer patients and their families.

The specific objectives are to:

Enable early detection, harmonize treatment, referral of patients and to create a reference document for health workers dealing with breast cancer. In addition it aims at creating awareness about breast cancer to health workers and the community and to be part of the National Cancer Society and as well as creating a breast cancer registry

#### **Breast self examination (BSE) detection of breast cancer**

The woman stands in front of a mirror, puts up her arms and observes her breasts; she may note

wrinkling of skin, elevation of the nipple, and a mass may also be seen. Then the woman lies flat on her back, puts one hand behind her head and uses the opposite hand to palpate the opposite breast.

If she notices any abnormality she should seek medical attention immediately. In pre-menopausal women BSE should be done on every 10<sup>th</sup> day of the menstrual cycle.

#### *Triple assessment of symptomatic cases:*

This is essential before treatment is undertaken and includes clinical evaluation, breast imaging and pathological examination.

#### *i. Clinical assessment*

History of breast mass, nipple discharge, nipple or skin retraction, axillary mass or pain, arm swelling, hair loss and development of other symptoms with reference to possible metastatic disease. A past medical history of breast disease and family history of breast cancer should be sought.

The reproductive history is also important. This should include age at menarche, menstrual history, age at first pregnancy, age at onset of menopause, number of pregnancies and abortions, breast feeding duration and history of contraceptive pill use.

Physical examination should include weight, height and surface area. The local examination should be done with the patient both in sitting and in supine position. One should look for breast masses, skin and nipple changes, axillary and supraclavicular lymph nodes as well as arm swelling.

#### *ii. Breast imaging:*

Patients are divided into 3 categories:

- Symptomatic patients
- Patients for testing including those with a family history of breast cancer, benign disease, follow up after surgery or those more than 45 years of age.
- Patients for image guided interventional procedures.

Imaging procedures offered include: mammography, breast ultrasound, galactography and pneumocystography. Mammography is the imaging technique of first choice in symptomatic patients. The ages at which mammography

*Correspondence:*  
Dr. P. Baguma  
Radiotherapy Unit,  
Mulago Hospital,  
P.O. Box 7051,  
Kampala – Uganda.  
Tel. 256 – 41 – 532392

should be done were adopted depending on our clinical experience and may be reviewed. Mammography is done for the symptomatic group for those over 25 years, and testing is done for those over 30 years. The BISM system of reporting a mammogram is recommended. Benign normal 1, benign lesion 2, indeterminate 3, suspicious 4 and malignant 5.

### iii. Pathological examination

- Fine needle aspiration cytology has a high degree of accuracy when malignant cells are noted and definitive surgery may go ahead based on this provided the results are in agreement with the clinical and/or mammographic assessment. For impalpable lesions, ultrasound or mammography guided fine needle aspiration (FNA) is advocated.
- Core biopsy
- Open biopsy

Frozen section histology can be used during biopsy but this is not practiced in Uganda at the moment.

### **Staging:**

Staging investigations include bilateral mammography to exclude multifocal or bilateral disease, breast ultrasound for accurate tumour size assessment and other tests. Full blood count, urea and electrolytes, liver function tests and baseline chest X-ray. The routine uses of liver ultrasound, skeletal survey and skeletal scintigraphy in asymptomatic women has very low yield and does not improve survival or quality of life. The TNM classification of breast cancer is recommended.

### **Treatment**

Like in all cancers the diagnosis of breast cancer is frightening and exposes the patient and her family to psychological trauma. Adequate counseling, pain and other symptom control should be part and parcel of the entire management strategy. Good counseling enables the patient and her family to cope with the stress that is part and parcel of cancer. It enables them to adjust their life styles. For example if she was the bread winner some one else may have to take up that role as she undergoes treatment. Counseling should continue during treatment and follow up.

## **Management of early breast cancer in Uganda.**

### **1. Surgery:**

Surgery with or without radiotherapy remains the mainstay of treatment for early breast cancer. Although it is not known whether surgery improves overall survival in patients with early breast cancer, benefits for local disease control are very clear. Surgical treatment may consist of tumor excision with surrounding margins or mastectomy (removal of the entire breast tissue and the fascia overlying pectoralis major muscle). Breast conserving surgery must be followed by radiotherapy as it has been shown that local recurrence is extremely minimized.

In Uganda, breast-conserving surgery is largely and patients should ideally have mastectomy and axillary clearance followed by adjuvant treatment.

The incision should be short and transverse to ease planning of radiotherapy. Physiotherapy of the ipsi-lateral shoulder joint should start on the first postoperative day to ease radiotherapy planning.

These guidelines recommend wide local excision only in localized non-invasive breast cancer and this must be followed by radiotherapy and hormone-therapy. Ideally patients should have mastectomy if these cancers are multi-focal or central or larger than 3 cm.

T<sub>1</sub>N<sub>0</sub>M<sub>0</sub> and T<sub>2</sub>N<sub>0</sub>M<sub>0</sub> tumors (T < 3cm) may be considered for breast conserving surgery plus radiotherapy. The tumour-free margin should not be less than 10mm at surgery. If the tumors are central, mastectomy ought to be done.

### **2. Adjuvant radiotherapy**

As of now radiotherapy is only available at Mulago hospital. A number of patients may fail to get radiotherapy because of socio-economic constraints and the long distances they may have to travel. However, health workers throughout the county must know that most of the patients will need radiotherapy after surgery. Adjuvant radiotherapy is required to reduce the risk of local recurrence in a conserved breast. Due to inadequate histological reporting, it is recommended that radiotherapy to the chest wall and supra-clavicular region be given in all patients that have had mastectomy. To reduce the risk of shoulder joint fixation and arm oedema, the axilla should not be irradiated in patients that have had proper axillary clearance. With proper planning, radiotherapy to the chest wall should avoid irradiating the heart and more than 3 cm of lung tissue. Adjuvant radiotherapy is also indicated in localized non-invasive breast cancer where wide local excision has been done. Adjuvant radiotherapy to the chest wall following mastectomy with axillary clearance is given in

many centers when the primary tumour is more than 5cm or is T<sub>4</sub>, or when the surgical margins are unclear, or if four or more axillary lymph nodes have tumour in them.

### 3. Adjuvant systemic therapy

Adjuvant systemic treatment is recommended in almost all patients in Uganda except ductal carcinoma in situ, in T<sub>1</sub>N<sub>0</sub>M<sub>0</sub> and T<sub>2</sub>N<sub>0</sub>M<sub>0</sub> or tumours of favorable histology in post menopausal women. All patients with tabular carcinoma in situ should have tamoxifen after wide local excision or mastectomy. Cytotoxic chemotherapy and hormonal therapy are recommended in all other patients. The chemotherapy should start immediately after surgery and be augmented by radiotherapy. Neo-adjuvant chemotherapy (hormonal or cytotoxic) can be given to down-stage the tumour before local treatment (radiotherapy or surgery) can be offered. The dose of tamoxifen is 20 mg once daily for as long as 2 - 5 years. Active drugs include; methotrexate, 5-fluoro-uracil, anthracycline antibiotics and cyclophosphamide. Adjuvant therapy with tamoxifen, cytotoxic drugs and ovarian suppression all reduce the risk of recurrence and death in women under 50 years of age, with node positive and node negative breast cancers.

Tamoxifen alone reduces recurrence and improves overall survival in all age groups. Elderly patients and those patients in poor performance status should ideally not be given cytotoxic chemotherapy, but they may benefit from hormonal treatment.

### 4. Follow up after treatment for early breast cancer

The aim of follow-up is to detect recurrence at an early stage, and thus improve chances of salvage treatment, to screen for a new primary in the opposite breast, to detect and manage treatment related toxicity, and to provide psychological support.

It is recommended that palliative care team such as Hospice Uganda get involved with breast cancer patients as early as possible. Hospice is able to offer psychological support, drugs for pain and other symptom control.

It is also recommend that more health workers (doctors and nurses) be trained in palliative care delivery to be able to offer the necessary support

quite early during the patient's illness.

Patients who have had mastectomy should have mammography of the opposite breast every 2 years. For those that have had breast conserving surgery, mammography of both breasts should be done every year. The incidence of local recurrence in a conserved breast is 10- 15% in Europe.

Patients should be seen at 3 and 6 months following radiotherapy and then once every year for life or at any time that they develop symptoms.

### Special groups include:

- Patients with locally advanced breast cancer. Systemic treatment or radiotherapy or both should be considered.
- Metastatic and locally recurrent breast cancer. These two should be treated. The main aim is to alleviate symptoms and maintain the highest possible quality of life.
- Breast cancer during pregnancy – a multidisplinary approach including surgeons, oncologists and obstetricians is recommended. Termination of pregnancy is not necessary, as it does not improve survival. Radiotherapy and chemotherapy should be avoided during pregnancy.

After 32 weeks, induced delivery followed by conventional treatment is recommended.

### Palliative care in breast cancer

This mainly involves control of symptoms especially pain in patients not responsive to curative treatment. It also deals with psychological, social and spiritual matters of the patient. It is recommended that the palliative care team see the patient as early as possible, even at diagnosis stage so that curative and palliative treatment go hand in hand. In Uganda, Hospice is able to offer this care and patients should be referred there if possible.

### Members of the Uganda Breast Cancer Working Group are:

- A.M. Gakwaya, Senior Consultant Department of Surgery, Mulago Hospital.
- P. Baguma, Consultant Radiologist Department of Radiotherapy Mulago Hospital.
- J. B. Kigula-Mugambe, Consultant Radiologist Department of Radiotherapy Mulago Hospital.
- E. Kiguli-Malwadde, Senior Lecturer Department of Radiology Makerere University.
- H. Nalwoga, Medical Officer Special Grade Department Mulago Hospital.

- J. Jombwe, Medical Officer special Grade Department of Surgery Mulago Hospital
- A. Robinson Oncologist Hospice (Uganda)
- E. Katongole-Mbidde, Senior Consultant Uganda Cancer Institute Mulago Hospital.
- J. Orem, Consultant Oncologist Uganda Cancer Institute Mulago hospital.
- A. K. Luwaga, Consultant Radiologist Department of Radiotherapy Mulago hospital.
- I. Luutu, Consultant Radiologist Department of radiotherapy Mulago hospital
- R. Adams, Palliative care physician Hospice (Uganda)
- A. Merriman, Palliative care physician Hospice (Uganda)
- L. Mpanga-Sebuyira, Palliative care physician Hospice (Uganda).
- J.C. Ssali, Surgeon in private practice
- P. Kiondo, Medical Officer Special Grade Department of Obstetrics and Gynaecology Mulago hospital.
- S. Kijambu Senior Lecturer Department of Surgery Mulago hospital.
- J. Jagwe, Senior Consultant Physician National Drug Authority.