Current Management of Breast Cancer in Nigeria

Professor K.D.T Yawe

Division of Breast and Endocrine Surgery and Consultant Clinical Oncologist University of Abuja-Nigeria

And

Vice-President of SOCRON

July 11, 2019

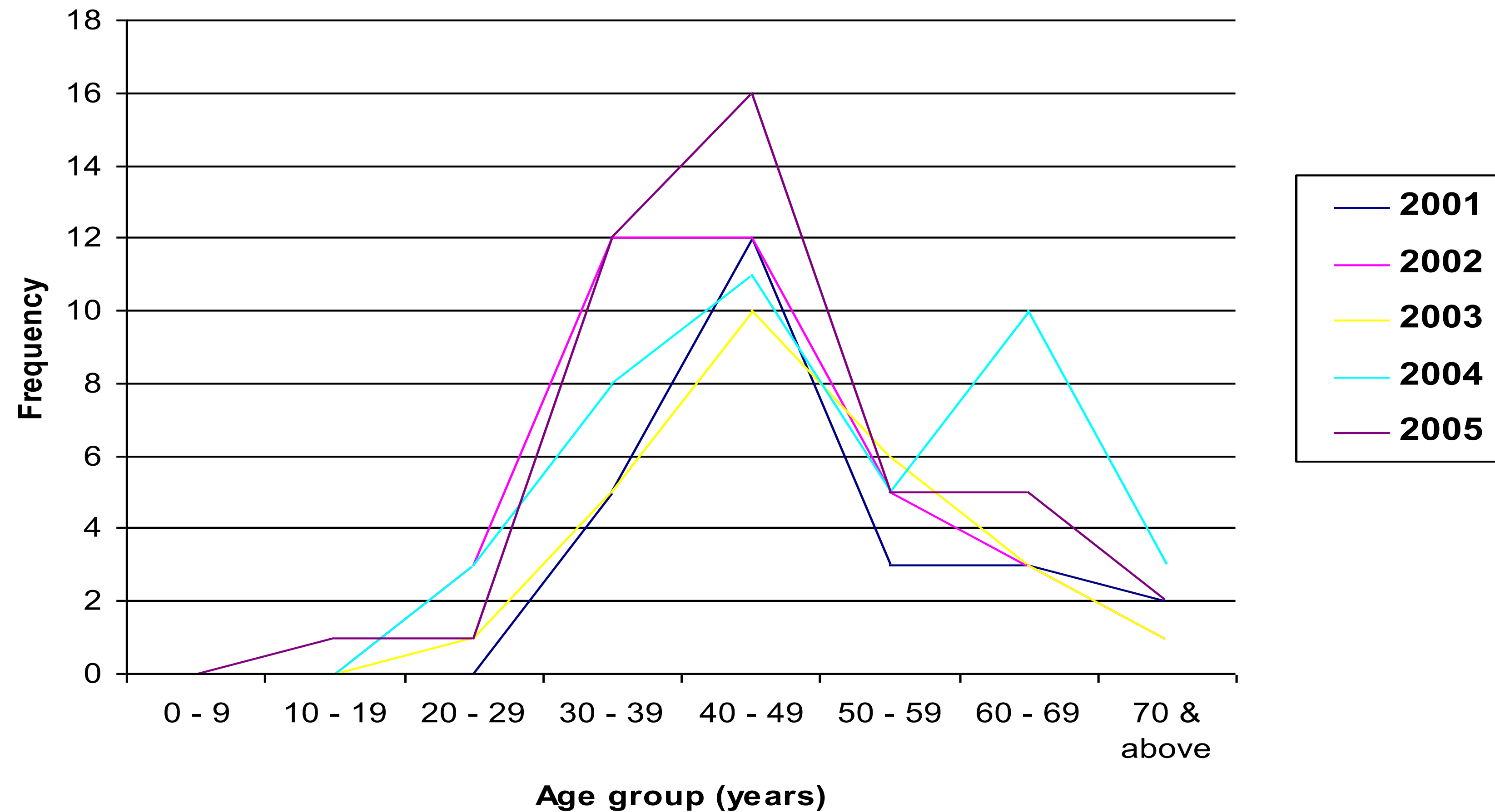
Outline

- Introduction
- Breast Cancer Staging
- Clinical Features
- Investigations
- Treatment
- Complications
- Future Trends
- Conclusion

Introduction

- ❖More women with breast cancer are presenting to our clinics
- ❖Most present in advanced stages but with efforts towards early detection, hopefully more women will present with early disease

Figure: Age group & Annual frequency of Breast Cancer in Maiduguri



- Management options depends on the stage of the disease, the patients presentation and the characteristics of the tumour amongst others
- Management is individualized

Breast Cancer Statistics

Nigeria						
Region	NE Maiduguri 2008	NW Ilorin 2005	NC Zaria 1999	SE Enugu 2005	SW Ibadan 2000	SS Calabar 2002
No of cases/Duration of study	169/5	143/8	129	164	1094	300
Prevalent age group	40-49			45	46.9	42.7
Stage at Presentation	III/IV 80%	III/IV	III/IV	III/IV 77.5%	III/IV 86.5%	III/IV
Common Histological Type	IDCA 86.2%	IDCA	IDCA	IDCA 78%	IDCA 82.3%	IDCA 80.6%
Immuno-histochemistry	no	no	no	yes	yes	Yes
Premenopausal	80%	88%	64%	69%		74.3%

Breast Cancer Staging

Stage	TNM	Category
0	Tis N0 M0	Early
1	T1 N0 M0	Early
2	T1 N1 M0 T2 N0-1 M0	Early
3	Any T, N2-3, M0 T3, Any N , M0	Locally Advanced
4	Any T, Any N, M1	Metastatic

Breast Cancer Staging-Molecular Biology

Type	Estrogen receptor	Progesterone receptor	Her 2 receptor	Ki 67
Lumina A	Positive	Positive	Negative	Low
Lumina B	Positive	Positive	Negative	High
Lumina B like	Positive	Any	Positive	
Her 2 positive	Negative	Negative	Positive	
Triple Negative	Negative	Negative	Negative	
Unclassified				

Migration to the Modified TNM Staging

- In the past, tumor stage was classified using only these 3 measures. Starting in 2018, the TNM system added these measures:
- Tumor grade
- Estrogen receptor status
- Progesterone receptor status
- HER2 status

Clinical Features

- ❖Commoner in females but males also affected

- ❖The number of young women presenting with breast cancer is on the increase

- ❖Many of who have a strong family history

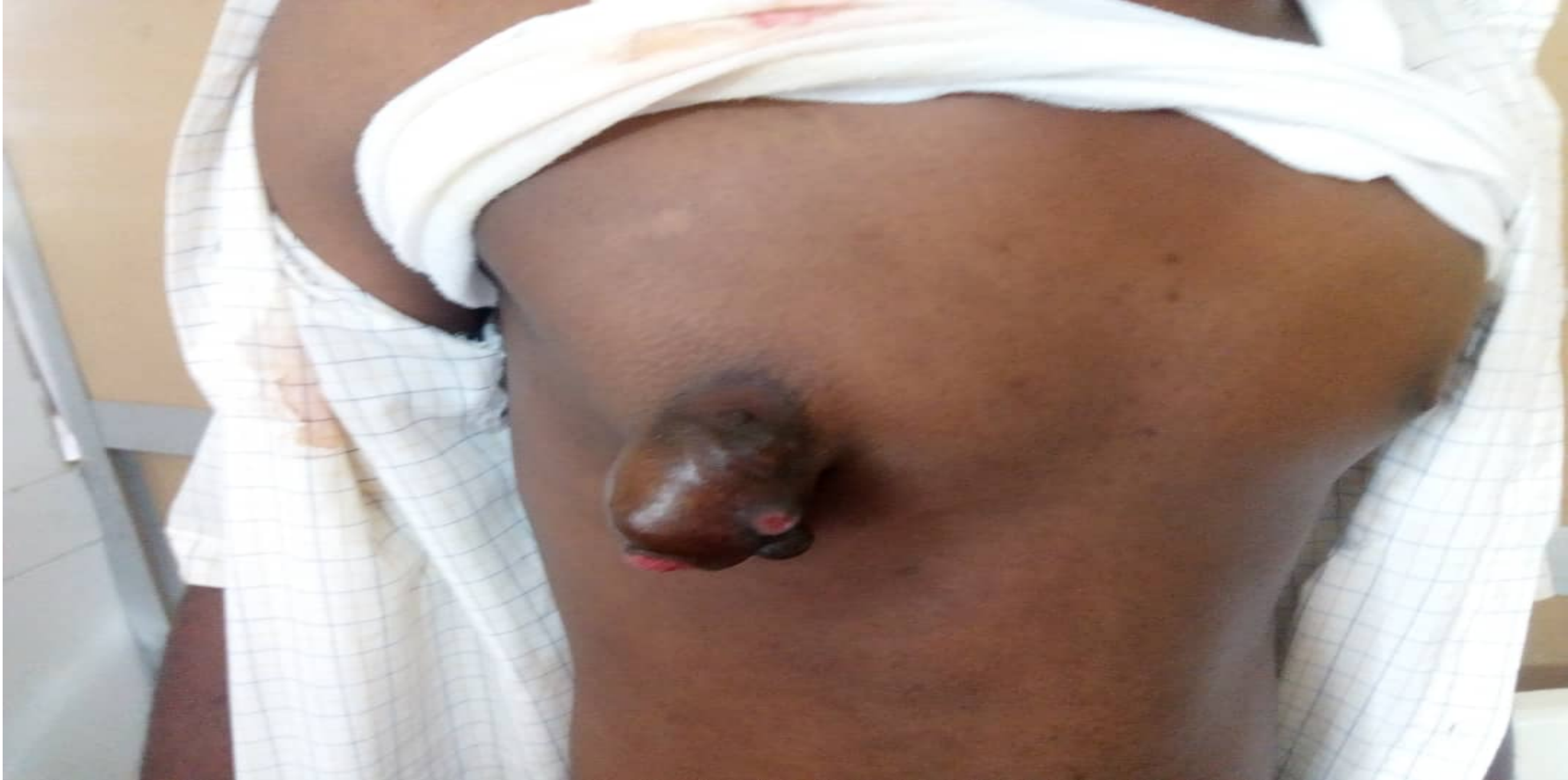
- Breast lump is the commonest symptom
    - Lump duration is usually long
    - Both breasts may be affected
    - Nipple discharge may be present
    - Ulceration in many cases is from inappropriate intervention

Summary of Local Data (UATH)

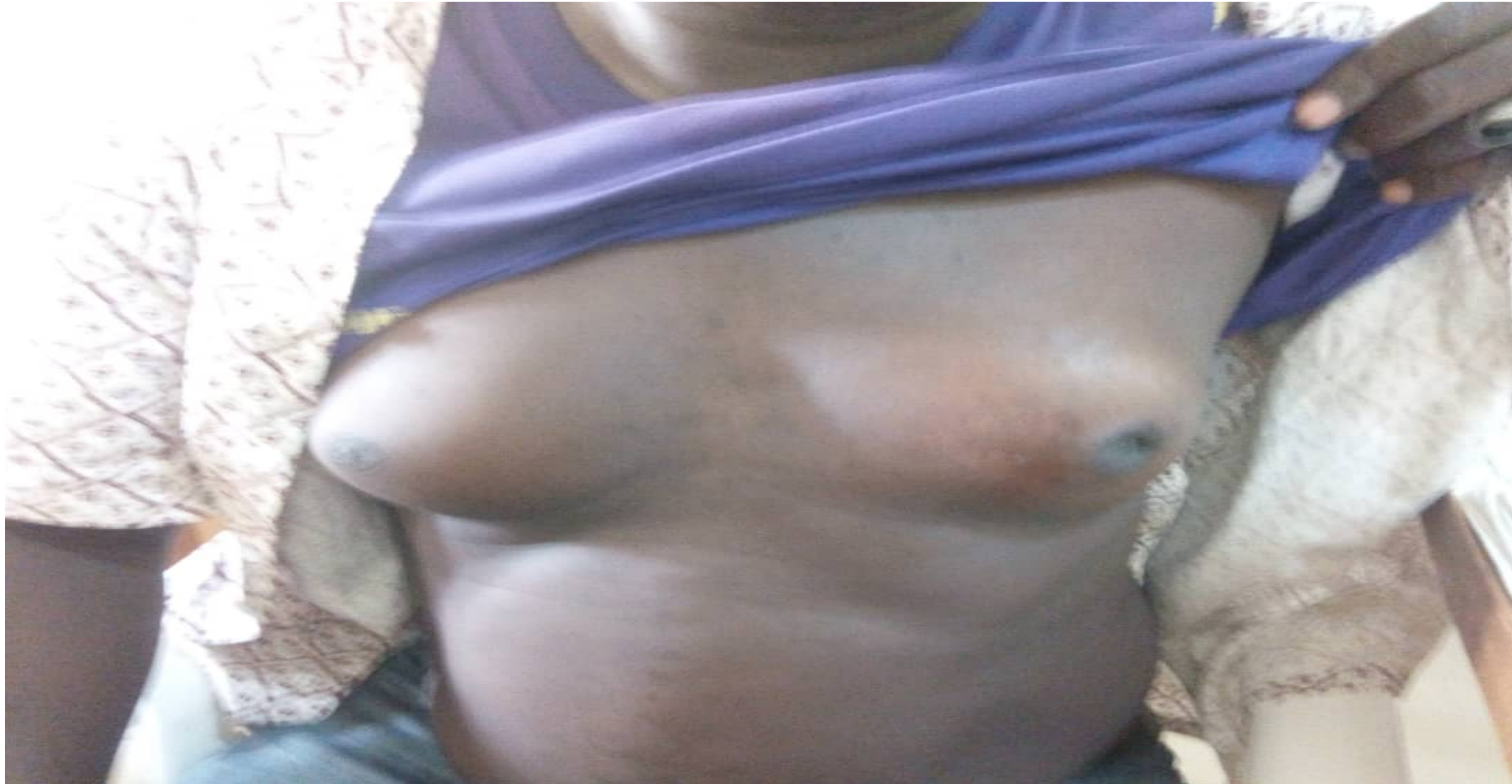
- ❖Age: 23 – 79 years
  (Average 43.5years. 38% in 4th decade)
  - ❖Affected Breast
  (Left 53%,Right 38%,Bilateral 9%)

- ❖Duration of symptoms
  (One week* to 10years)
- ❖Pregnancy Associated 15.5%
  (Breast cancer in pregnancy 8.8%)

Male breast Cancer -1 (23year old)



Male Breast Cancer -2 (A 50year old man with A Locally Advanced (T4N1M0) Lumina B-like (ER+, Her 2 +) Invasive Ductal Carcinoma of the left Breast)



- **Systemic symptoms are common on presentation**

- History of use of combined oral contraceptive as well as hormone replacement therapy is infrequent

- Many of the affected women are multiparous and have breast fed their children for 12-24 months**

- Exposure to radiation, alcohol use and **tobacco smoking*** is uncommon (except in some states in the NW Nigeria)

- History of previous breast disease is important

- A good number of patients show features of chronic ill health

- Emergency presentation is usually due to pleural effusion, anaemia or anaemic heart failure and bleeding from ulcer

- Most of the lumps are > 5cm in size
  - By this time they are usually attached to chest wall, or skin involved

- Lymph node involvement is almost always present

- Features of metastasis may not be immediately apparent in some cases

Investigations

- ❖Imaging
  - Ultrasound – breast, abdomen, pelvis
  - Plain X-rays – chest, skull, spine, long bones
  - Mammography
  - MRI*
  - Bone Scan*
- ❖FNAC*
- ❖Biopsy
  - Open : incisional, excisional
  - **Trucut**

- ❖Image guided tissue biopsy*
- ❖Sentinel lymph node biopsy*
- ❖Tissue Analysis
  - Histology
  - Subtype
  - Grade
  - Receptor Status
    - ER
    - PR
    - HER 2
  - Ki 67

- Blood
  - Full Blood Count
  - Liver function test
  - Kidney function test

- Tumour Markers
  - Ca 15-3
  - CEA

- Others
  - Wound swab M/C/S

Management Approach

- ❖Multimodal
- ❖Multidisciplinary
- ❖Tumour board

Treatment

A. Loco-regional Control

- ❖Surgery
  - Breast conservation*
  - Simple Mastectomy
  - Modified radical mastectomy
  - (Preop downstaging& reduction of locoregional recurrence strategies)
- ❖Radiotherapy
- ❖Cryoablation
  - cryoprobe

B. Systemic Treatment

- ❖ Chemotherapy
  - First line – CMF, FEC,
  - Second line – Taxane added
  - Third line – Platinium compound added

- ❖ Target Therapy
  - Trastuzumab*

C. Hormonal Manipulation

- Anti estrogens
- Aromatase inhibitors

D.OTHERS

- ❖ Wound care- fungi, maggots, traditional applications e.t.c.
- ❖Tetanus prophylaxis
- ❖Bleeding

Management of Breast Cancer in Pregnancy

❖ First trimester
- Radiotherapy avoided in all stages
- Chemotherapy avoided
- Surgery with some risks due to general anaesthesia

❖ Second trimester
- Chemotherapy*
- Surgery

❖ Third trimester
- Chemotherapy*
- Surgery

Challenging Complications

- ❖Recurrent Pleural effusion
- ❖Recurrence Local
- ❖Mets to CNS (Brain and spinal cord with attendant complications forcing multidisciplinary care)
- ❖Lymphedema
- ❖Bone marrow failure (White cell line)
- ❖Managing relations of people living with advanced breast cancer*

Prognosis

❖Outcomes of breast cancer treatment in Nigeria remains poor

- Kene et al in 2010 reported an overall survival rate beyond 36months at 70.4%

- Papoola et al in LASUTH in 2012 reported 5 years survival rate of 25.6%
  - Stage III and IV diseases had 5 year survival rates of 15% and 5% respectively
  - Others: Haj,25, BD,19, Shehu-15

Recent Positive Developments

❖National Cancer Control Program

❖Tumour Boards

❖Public Private Partnership

❖NGOs and Advocacy

Future Trends

❖ Nigeria is in need of advancement in several modalities of management of breast cancer
- MRI
- Functional Radiotherapy Centres
- Genetic Studies – BRCA 1 and 2 genes, TP53, PTEN
- Prophylactic mastectomy
- Oncoplastic surgery
- Clinical Trials
- National guidelines on treatment
- Capacity building (medical oncology)

❖ *Liquid biopsy**

❖ *Uniform reporting* and the use modified TNM staging*

Challenges of Breast cancer Management

❖Late presentation

❖Poor referral and feedback system

❖Inadequate facilities

❖Poor strategy in early detection, **diagnosis*** and treatment

❖Poor funding/inadequate allocation to health

Teaching Hospitals with Radiotherapy facilities in Nigeria

1) ***Lagos University Teaching Hospital and EKO Hospital**
2) University College Hospital, Ibadan
3) ***National Hospital Abuja**
4) Ahmadu Bello University Teaching Hospital, Zaria
5) University of Nigeria Teaching Hospital, Enugu
6) University of Benin Teaching Hospital
7) Usman Danfodiyo Teaching Hospital, Sokoto
8) Federal teaching Hospital Gombe
9) Other “unnamed sites”

Conclusion

❖Management of breast cancer in Nigeria is challenging

❖Most patients present with advanced disease

❖There is urgent need for improvements in strategy, facilities and manpower in this regard

❖**The Discipline of Women Health (Breast, Cervix and Thyroid gland)**

THANK YOU FOR LISTENING