

Contemporary Issues in Adolescent Care

MOOBS; BOOBS and JUBJUBES

Prof CA BENN



2016

Why are we here?

Table 4: HIV prevalence estimates and the number of people living with HIV, 2001–2011

	Prevalence	Incidence	HIV population
Y HIV prevalence			
20	Table 4 shows the prevalence estimates and the total number of people living with HIV from 2001 to 2011. The total number of persons living with HIV in South Africa increased from an estimated 4,21 million in 2001 to 5,38 million by 2011. For 2011 an estimated 10,6% of the total population is HIV positive. Shisana, et al. (2009) estimated the HIV prevalence for 2008 at 10,9%. <u>Approximately one-fifth of South African women in their reproductive ages are HIV positive.</u>		
20			
20			
20			
2005	10,0	10,0	4,21
2006	Statistics South Africa		P0302
2007			
2008	Median time from HIV infection to death		
2009	This release assumed the median time from HIV infection to death in line with the UNAIDS Reference Group recommendation of 10,5 years for men and 11,5 years for women.		
2010	10,2	16,5	5,26
2011	19,4	16,6	5,38

www.tac.org.za/community/keystatistics

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and should be treated with great caution.

Private Health System

No comprehensive methodical analysis of the number of people on antiretroviral treatment in the private health system has been done. The Joint Civil Society Monitoring Forum (JCSMF) estimates in the order of 100,000 people receive treatment. The JCSMF intends to re-analyse this sector soon.



Why is that important for us?

Median time from HIV infection to death

This release assumed the median time from HIV infection to death in line with the UNAIDS Reference Group recommendation of 10,5 years for men and 11,5 years for women.

RMI

Results 1248 of 17 661 eligible patients died during 91 203 person years' follow-up. Life expectancy (standard error) at exact age 20 increased from 30.0 (1.2) to 45.8 (1.7) years from 1996-9 to 2006-8. Life expectancy was 39.5 (0.45) for male patients and 50.2 (0.45) years for female patients compared with 57.8 and 61.6 years for men and women in the general population (1996-2006). Starting antiretroviral therapy later than guidelines suggest resulted in up to 15 years' loss of life: at age 20, life expectancy was 37.9 (1.3), 41.0 (2.2), and 53.4 (1.2) years in those starting antiretroviral therapy with CD4 count <100, 100-199, and 200-350 cells/mm³, respectively.

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SEARCH

Impact of late diagnosis and treatment on life expectancy in people with HIV-1: UK Collaborative HIV Cohort (UK CHIC) Study

Conclusions Life expectancy in people treated for HIV infection has increased by over 15 years during 1996-2008, but is still about 13 years less than that of the UK population. The higher life expectancy in women is magnified in those with HIV. Earlier diagnosis and subsequent timely treatment with antiretroviral therapy might increase life expectancy.



MOOBS

Gynaecomastia?

- The benign enlargement of male breast tissue

Pseudogynaecomastia

- Breast enlargement due to adipose tissue

Increase in childhood obesity

Are we truly diagnosing gynaecomastia in our young boys

Do we over diagnose in both population subsets

When is gynaecomastia physiological?

- 65-90% of neonates have breast tissue
- By age 14 up to 60% of boys have gynaecomastia.



D and D's

- Body builders (androgen)....
- body dysmorphia in our young teenage boys
- Cosmetics, creams, and lotions
- lavender oil (*Lavandula augustifolia*), tea tree oil (*Melaleuca alternifolia*)

Illness

- Thyrotoxicosis increases production of androstenedione,
- Androgen catabolism is reduced in liver disease
- Renal failure
- Insulin resistance
- NIDDM

Tumours

- Testicular tumours have increased aromatase activity
- Lung and hepatic tumours
- Chemotherapy or radiation damages Leydig cells.

Treatment?

When and how

- Physiological :(no treatment).
- Withdraw offending drugs or treat underlying disorders
- Tamoxifen (10-mg/ day) reduces pain and breast volume in 40-80% of boys
- Beware changing medication, decision is multi-disciplinary and should not be determined only by the gynacomastia

HIV and gynaecomastia



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- Gynecomastia should be distinguished from pseudogynecomastia as part of the lipodystrophy syndrome caused by Nucleoside Reverse Transcriptase Inhibitors (NRTIs) to avoid incorrect substitution of drugs.

Mechanism?

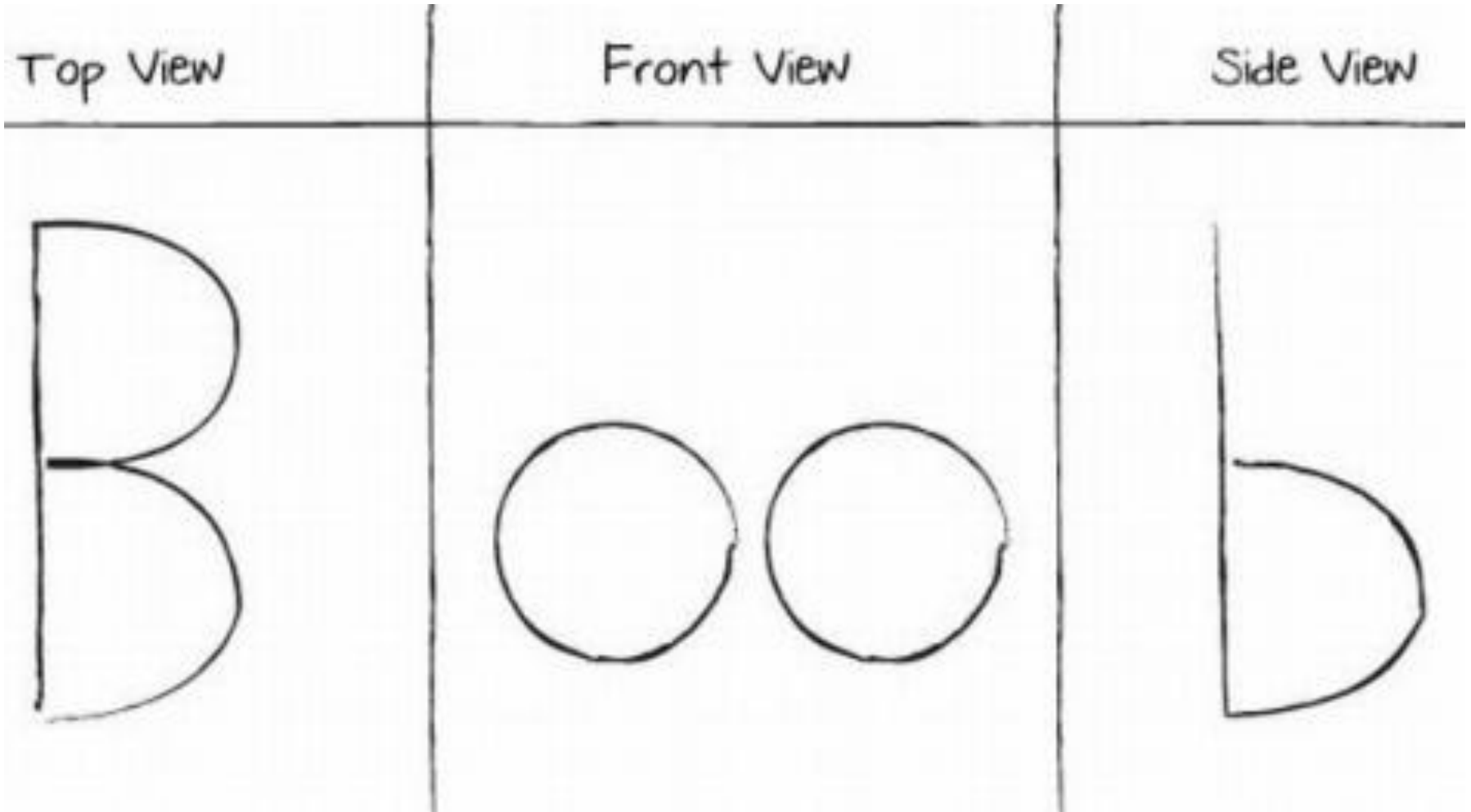
- IL-6 has been shown to increase aromatase activity in breast tissue
- Cytokine disturbances occurring with immune restoration may result in altered breast tissue oestrogen availability, which ultimately causes true gynaecomastia.
- Once immune restoration has occurred, the levels of these cytokines fall leading to restoration of the oestrogen

- Efavirenz-induced gynecomastia may occur in children as well as in adults
- In resource-poor settings, empirical change from efavirenz to nevirapine may be considered, providing no other known or alarming cause is identified
- Timely recognition of gynecomastia as a side-effect of efavirenz is important in order to intervene while the condition may still be reversible, to sustain adherence to ART and to maintain the sociopsychological health of the child.

Surgical treatment

- Goals of surgery include removing abnormal breast tissue, restoring the normal male breast contour, and reducing pain.
- Liposuction is effective if breast enlargement is mostly caused by adipose tissue and the overlying skin is fairly taut
- Subcutaneous mastectomy is required for removal of glandular tissue and redundant skin (visible inframammary skinfolds) and pain relief

Love Classification



Mastalgia

All girls/women have breast pain

- 10% of breast cancers present as a painful mass
- Isolated pain in the absence of a ultrasound abnormality is unlikely to be a cancer
- Adequate reassurance allows 85% of patients to accept and tolerate their pain

Non Cyclic : 4 subgroups

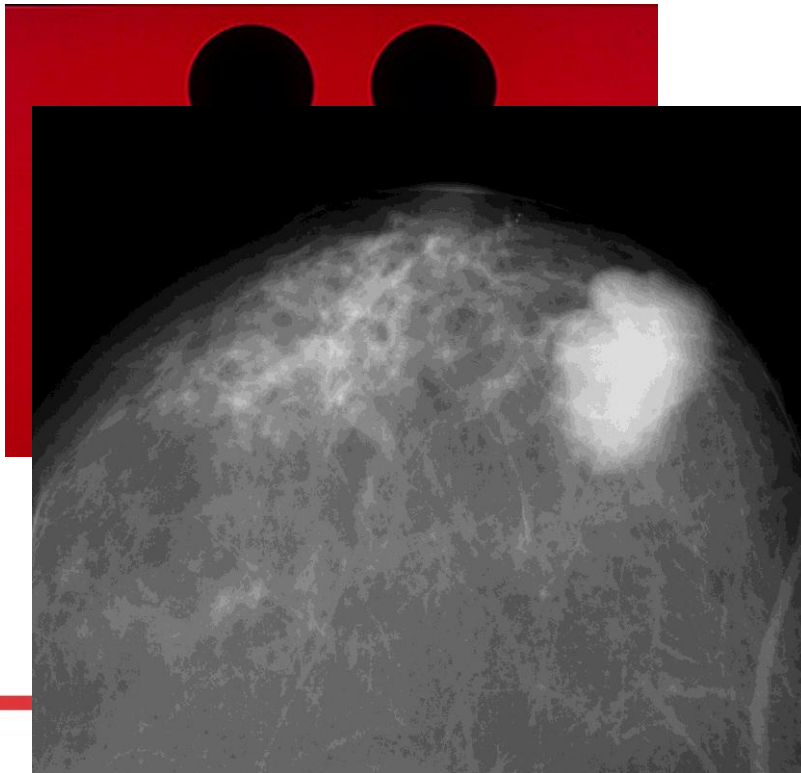
- Costochondritis, (NSAIDS)
- Burning pain of duct ectasia (Topical Bactroban)
- Lateral pulling pain (BRA)
- Constant heavy hormonal pain (Tamigel)

- Common Masses:
- ?but faster growth



When it is not cancer...

- Ulcerating mass.
- Nipple inversion.
- Non-healing or progressive...



- Difficult to image
- Difficult to biopsy
 - Difficult to grow
 - Difficult to treat

When it is not *breast* cancer...

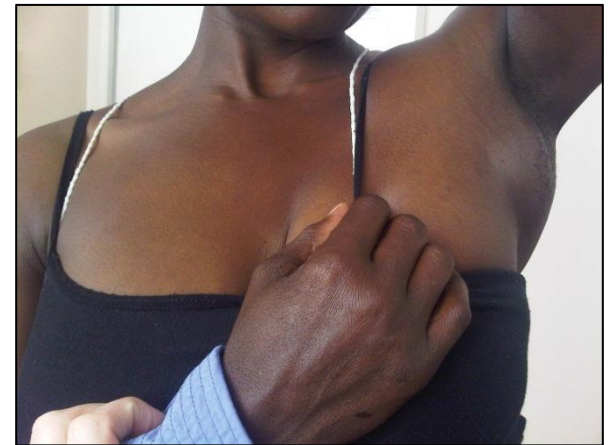
- Incidence of Primary Breast Lymphoma seems to be higher Michelow (2010) Cancer Cytopath
 - Rapidly growing normally in RUQ or axilla
 - Hodgkin and non-Hodgkin



- Kaposi's sarcoma may present in

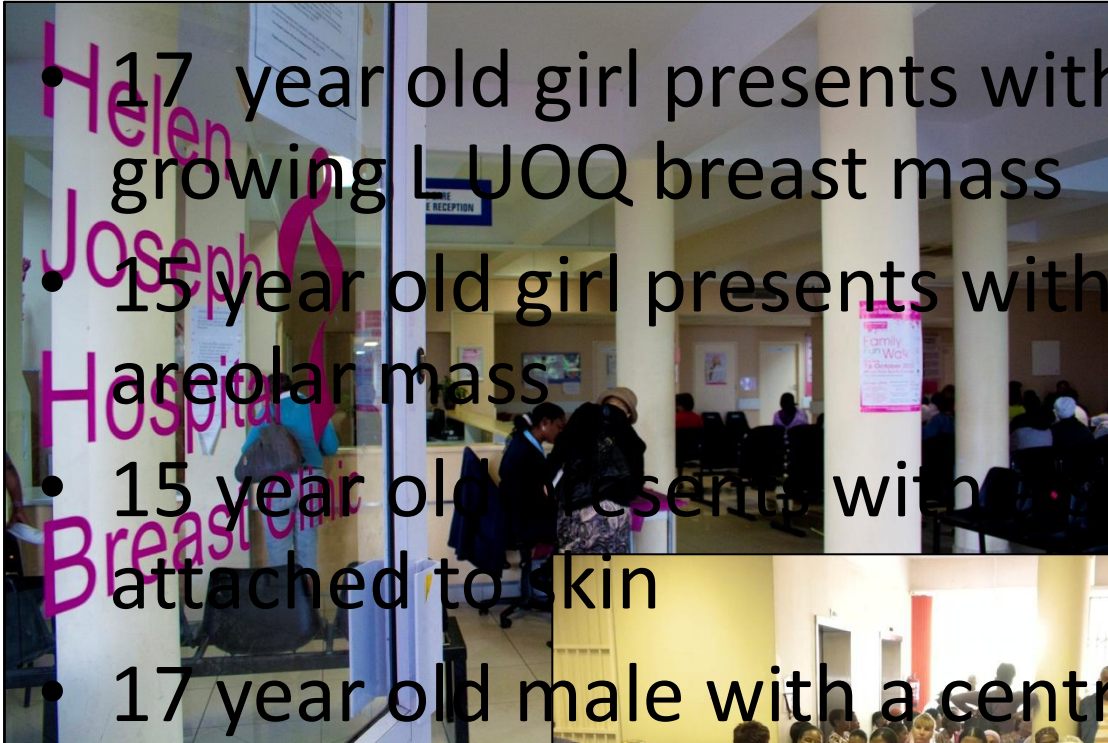
both sexes and is AIDS defining

- Multiple nodules on skin or in breast
- ARVs +/- chemotherapy



Scenarios around HIV and the breast

- 17 year old girl presents with large rapidly growing L UOQ breast mass
- 15 year old girl presents with ulcerating areolar mass
- 15 year old presents with small hard mass attached to skin
- 17 year old male with a central breast abscess
- 16 year breast feeding with an abscess not responding to Augmentin



Pre-tweens: 6-11 (JubJubes)

Girls

- Precocious development
- More galactorrhea
- Duct ectasia
- Excema
- Unilateral or bilateral breast gigantism.

Boys

- Described Gynacomastia
- Duct ectasia







Young Girls: Teens

- Breast Abscesses
- TB breast
- Lymphoma
- Specific Breast Pain
 1. Candida
 2. Physiological pain
 3. Costochondritis
 4. Mondeors Sign



When it is not cancer...

- Chronic HIV and acute seroconversion can both cause sudden onset lymphadenopathy
 - Breast mass- in intramammary node
 - Axilla- thickened cortex and difficult to characterise
 - Lymphadenitis and obstruction can cause peau d'orange
- Counselling and testing must be sensitive but mandatory
- Core biopsy is sufficient where suspicion is low such as in HIV positive patients Michelow (2010) Cancer Cytopath
- On ultrasound large dense nodes >2cm with absent fatty hilar should be considered high risk for HIV



YODA

MATTER YOUR LIGHTSABER SIZE
DOES NOT, HOW YOU USE IT WILL.



2016

Does it affect surgical management?

Is it safe to offer surgery to HIV positive patients?

What is an HIV+ patient?

ARV naïve? On HAART? CD4 count? Viral load?

- No association with immune status or viral load Sewell (2001) J Reprod Med
- No association with complications Buerher (1990) Ann Surg
- Most important risk factors is ASA grade Jones (2002) Mt Sinai J Med
- **Not a significant risk factor for infection Aird, (2011) J Bone Joint Surg
- *“HIV infection should not be considered a significant independent factor for major surgical procedures. Appropriate surgery should be offered as in normal surgical patients without fear of an unfavorable outcome”* Madiba&Thomson (2009) WJS
- ~~Local practice: Institute ARVs and aim for CD4 above 200~~ 2006 prior to surgery

What other surgical factors are affected?

- Reconstruction:

- No contraindications for plastic surgery Davison (2008) Plas Recon Surg

- Concerns around infection and vasculitis

- Little described in breast but translated from facial lipodystrophy- fat fill and local flaps successful

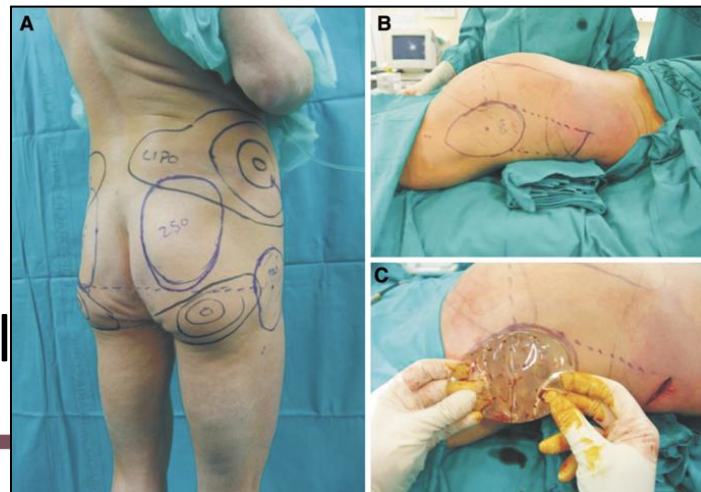
- Good experiences with breast conserving surgery

- Radiation well-tolerated Housri (2010) Cancer

- Traditional avoidance of implants ?questioned

- Benito (2006) Aesth Plast Surg
Harrison (2002) J Bone Joint Surg

- Free flaps avoided but local experience of pedicle flaps (incl TRAMs) good

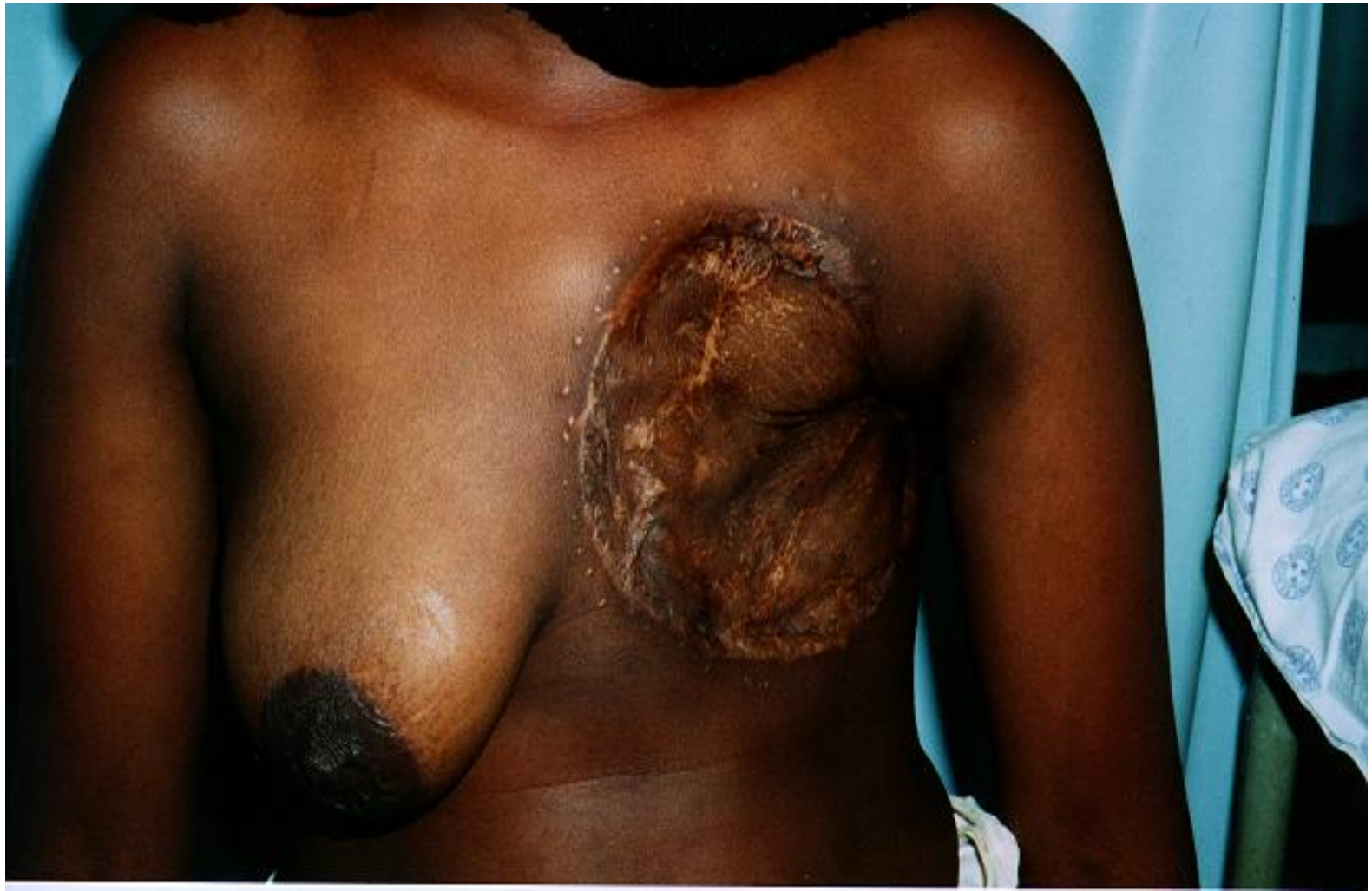


Psychosocial

Separate clinics (men and children)

Earlier surgical intervention?

Counseling



Conclusion

- Paucity of literature does not mean these conditions don't exist
- Behooves us to develop specialized clinics
- Collate research
- Multidisciplinary care should extend to these little people