

SQUAMOUS CELL CARCINOMA OF THE SKIN IN A TROPICAL SETTING

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UNIVERSITY OF CALABAR
CALABAR

158 YAB













international arrivals



domestic arrivals

BACKGROUND



- **BASAL CELL CARCINOMA IS THE COMMONEST SKIN MALIGNANCY IN CAUCASIANS (NORTH AMERICA, EUROPE AND AUSTRALIA).**
- **IN CONTRAST, IN SUB SAHARAN AFRICA SQUAMOUS CELL CARCINOMA IS REPORTED TO BE COMMONEST SKIN MALIGNANCY.**

- **HALDER AND BRIDGEMAN-SHAH IN USA REPORTED MORE CASES OF SCC IN AFRICAN-AMERICAN THAN CAUCASIAN COUNTERPARTS.**

- **IN NEW ORLEANS, SCC WAS 20% COMMONER THAN BCC IN BLACKS OF THE SAME POPULATION.**

- **THE MAJOR REASON FOR THIS RACIAL DIFFERENCE IS THE PROTECTION**



- **FROM ULTRAVIOLET RADIATION (UVR) PROVIDED BY MELANIN IN THE DARKER PIGMENTED RACES.**

- **RISK FACTORS ADVANCED ARE SOLAR AND NON-SOLAR; EXPOSURE TO UVR, FAIR SKIN, RADIATION EXPOSURE, GENETIC SYNDROMES, CHEMICAL EXPOSURE, REDUCED IMMUNITY, INJURY AND INFLAMMATION INCLUDING HUMAN PAPILLOMA VIRUS.**



- **CONTRIBUTIONS VARY WITH RACE, GEOGRAPHIC REGION INCLUDING SITE OF THE LESION.**

- **SUN EXPOSURE IS THE MAJOR FACTOR IN WHITES WHILE THE NON-SOLAR FACTORS – INFLAMMATION AND CHRONIC ULCERATION LEADING RISK FACTORS IN BLACKS.**

- **ALBINISM IS A KNOWN RISK FACTOR OF SKIN MALIGNANCY**



- **SCC COMMONEST CUTANEOUS MALIGNANCY IN AFRICAN ALBINOS.**
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- **VIRALLY INDUCED SCC MAY MANIFEST AS WARTY GROWTH. (HUMAN PAPILLOMA VIRUS)**



OBJECTIVES

- **TO EVALUATE THE CURRENT PATTERN, POSSIBLE RISK FACTORS AND MANAGEMENT OUTCOMES.**

- **PROFFER SOLUTIONS FOR IMPROVED OUTCOMES.**



PATIENTS AND METHODS

- **PATIENTS WITH HISTOLOGIC DIAGNOSIS OF SCC WHO PRESENTED TO THE UNIVERSITY OF CALABAR TEACHING HOSPITAL (UCTH), CALABAR BETWEEN JANUARY 2013 TO DECEMBER 2015 WERE STUDIED.**

- **INDICES EVALUATED WERE AGE, SEX, RISK FACTORS, SITE, CLINICAL PRESENTATION TREATMENT AND OUTCOMES.**



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- **THIS WAS COMPARED WITH TOTAL NUMBER OF SKIN MALIGNANCIES SEEN OVER THE SAME PERIOD.**



RESULTS

- **TEN (10) PATIENTS**
 - . **4 MALE**
 - . **6 FEMALE**
 - . **M: F = 1: 1.5**

- **AGE RANGED FROM 7 – 65 YEARS**
(MEAN 43.7YEARS)

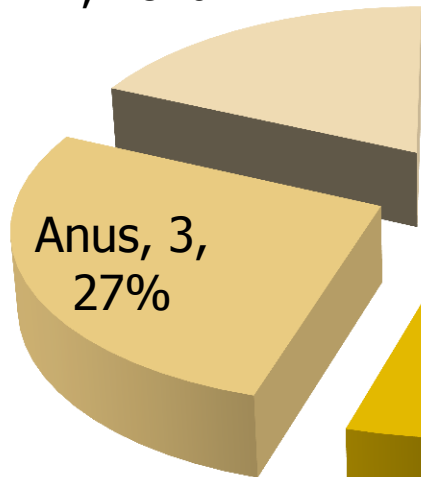
- **THE 10 PATIENTS COMPRISED 47.6**
TOTAL SKIN MALIGNANCY.



■ NINE (90%) WERE DARKLY PIGMENTED

■ ONE ALBINO

Lower Limb,
2, 18%



Head/ Neck,
4, 37%



- Head/ Neck
- Upper Limb
- Trunk *
- Anus
- Lower Limb

Trunk *, 1,
9%

Upper Limb,
1, 9%

■ ALBINO (2 SITES, HEAD AND TRUNK)



A MARJOLIN'S ULCER (MU)

3 PATIENTS (30%)

*** SITE – ALL LIMB LESIONS (1 UPPER, 2 LOWER LIMB)**

B NON MARJOLIN'S

7 PATIENTS (70%)

(i) * 1 ALBINO (MULTIPLE LESIONS – LEFT POST AURICULAR AND UPPER BACK)



FIGURE 2 -





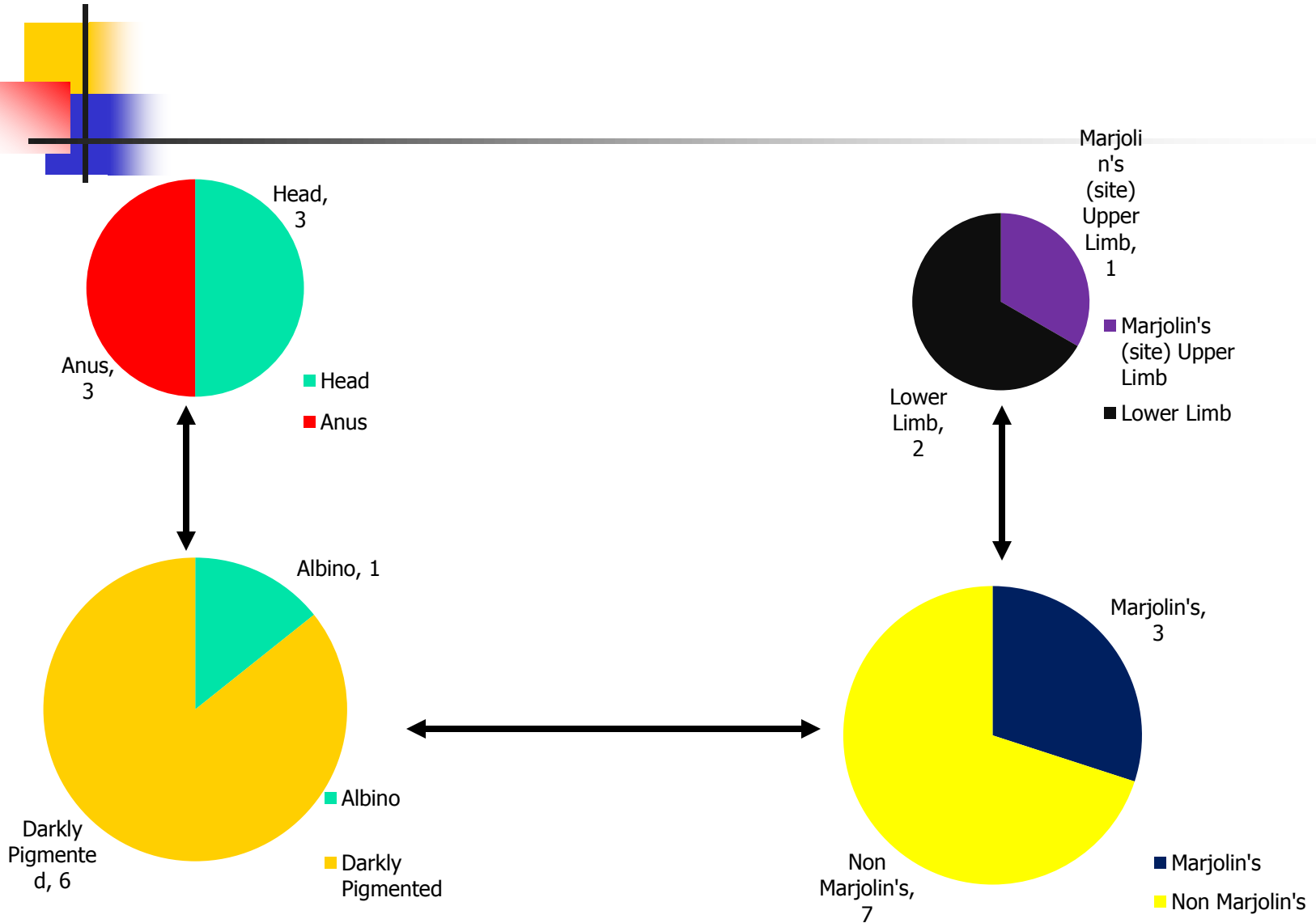
**(ii) 3 DARKLY PIGMENTED PATIENTS
(FEMALES) PRESENTED WITH ANAL
LESIONS**



FIGURE 3



FIGURE 4 -



- **YOUNGEST PATIENT AGED 7YEARS**
 - **PRESENTED WITH AURICULAR POLYP**



- **OTHER PATIENTS 2(20%)**
 - **PRESENTED WITH SCALP ULCERS**



FIGURE 5 -



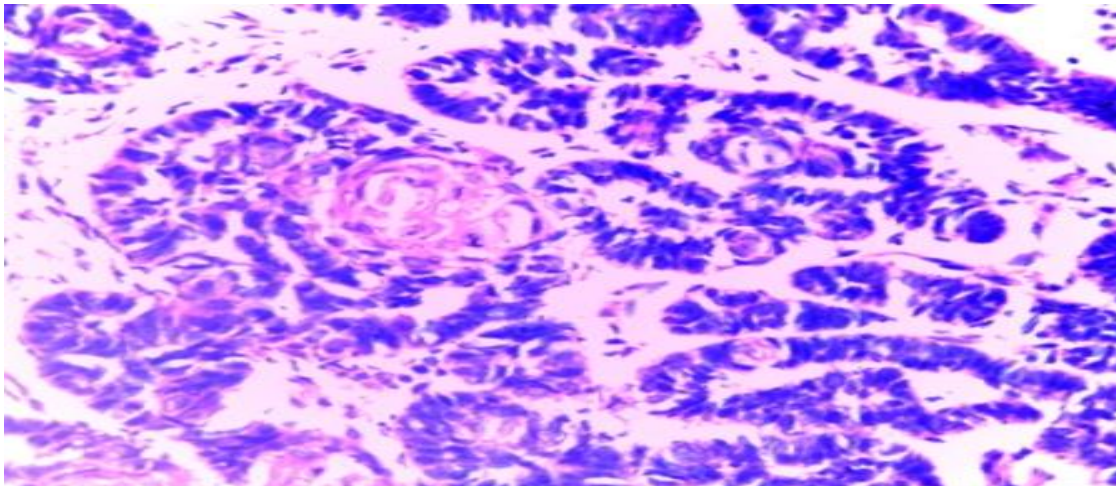
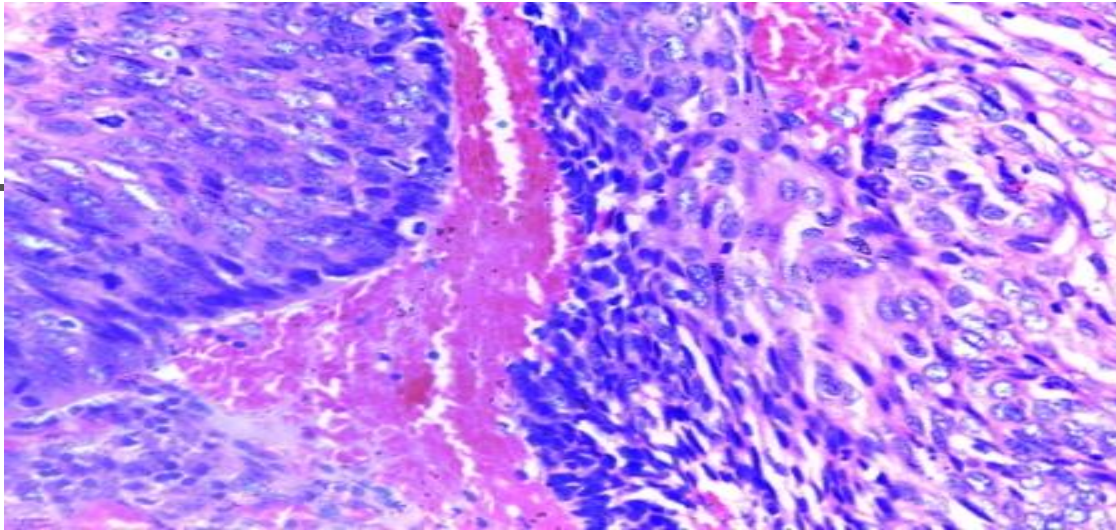
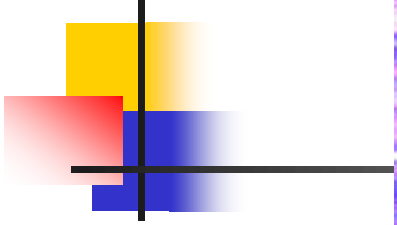
DIAGNOSIS



- **HISTOLOGY**

- **TUMOUR COMPOSED OF SHEETS AND NESTS OF MALIGNANT SQUAMOUS CELLS WITH KERATIN PEARLS.**

FIGURE 6 a & b



MARJOLIN'S ULCER



- **ALL WERE DUE TO CHRONIC TRAUMATIC ULCERS.**
- **AGES RANGED 27 – 55 YEARS (MEAN – 45.3YEARS).**
- **LATENCY PERIOD, 6 – 11 YEARS (MEAN – 8.3YEARS).**

TREATMENT

- SURGERY (EXCISION+SKIN COVER – GRAFT/FI
- AMPUTATION
- CHEMOTHERAPY
- RADIOTHERAPY



OUTCOME

- POOR DUE TO ADVANCED PRIMARY LESIONS.
- ONE HOSPITAL MORTALITY (SCALP ULCER).



TABLE 1 - TREATMENT / OUTCOME



| Surgery | Excision | |
|---------|--------------------------------------|---|
| | + Skin graft/ flap | 6 |
| | Amputation | 1 |
| | Radiotherapy (poorly differentiated) | 1 |
| | Chemotherapy (ADRIAMYCIN) | 3 |
| | Absconded LAMA | 1 |
| | Absconded Readmitted (Mortality) | 1 |

DISCUSSION



- **SQUAMOUS CELL CARCINOMA ACCOUNTED FOR 47.6% OF TOTAL MALIGNANCY.**
- **EARLIER STUDIES IN THE AUTHOR'S SETTING PORTRAY SIMILAR EXPERIENCE WITH SCC AS THE COMMONEST MALIGNANCY [ASUQUO ET AL 2009 (42.2%), 2012 (36.3%)].**
- **REPORTS FROM OTHER PARTS OF THE COUNTRY (NIGERIA) FURTHER CONFIRM THE PREPONDERANCE OF SCC – NORTHERN NIGERIA – OCHICHA ET AL, KANO (40.0%), GANA AND ADEMOLA 2008 IN IBADAN SOUTH WEST NIGERIA, 40.5%.**



- **OTHER PARTS OF AFRICA REPORT SIMILAR EXPERIENCE – NTUNBA ET AL 1997-KENYA, AMIR ET AL 1992 IN TANZANIA.**
- **CONTRAST WITH CAUCASIANS IN NORTH AMERICA, EUROPE AND AUSTRALIA, DIEPGEN AND MAHLER 2002 REPORTED THAT BCC ACCOUNTED FOR 70-80% WHILE SCC WAS 20% OF SKIN CANCER.**



- **MISSEDI ET AL, (2001) IN TUNISIA REPORTED THAT BCC RANKED FIRST, 69% OF SKIN CANCER WHILE SCC WAS SECOND 31%.**
- **FACTORS RESPONSIBLE FOR THESE VARIATIONS MAY BE ATTRIBUTED TO VARIATION IN HOST FACTOR (SKIN PIGMENTATION) AND THE ENVIRONMENTAL (GEOGRAPHICAL) FACTORS (CHRONIC INFLAMMATION) IN OUR SETTING.**
- **BASED ON THE POSSIBLE RISK FACTORS IN THE AUTHORS SETTING WE CLASSIFIED SCC INTO MARJOLIN'S ULCER (MU)-3(30%) AND NON-MARJOLINS-7(70%). WITH A FURTHER SUBDIVISION INTO SOLAR AND NON SOLAR FACTORS.**



- **IN THE MU CASES, ALL THE PATIENTS WERE DARKLY PIGMENT WITH NON SOLAR RISK FACTOR AS CHRONIC INFLAMMATION FROM CHRONIC ULCERS (TRAUMATIC OR NOT). ALL LESIONS WERE LOCATED ON LIMBS IN KEEPING WITH NON-SOLAR RISK FACTORS.**

 - **NON MU SUBSET –**
 - . **SOLAR – ALBINO (1 PATIENT)**
 - . **NON SOLAR – 6 PATIENTS (DARKLY PIGMENTED)**
- (A) ALBINISM AND SOLAR RADIATION ARE RISK FACTORS FOR SCC IN AFRICANS (YAKUBU AND MABOGUNJE 1995, ASUQUO ET AL 2011)**



- **WE RECORDED ONE ALBINO IN THIS STUDY WITH MULTIPLE LESIONS AFFECTING THE UPPER PART OF THE BODY (INCLUDING ACTINIC KERATOSES) IN KEEPING WITH SOLAR AETIOPATHOGENESIS.**
- **THE DISTRIBUTION OF THE LESIONS IN THE SIX PATIENT WERE IN KEEPING WITH NON-SOLAR RISK FACTORS.**



**(B) . THREE (30%) PATIENTS ALL FEMALES
PRESENTED WITH ANAL LESIONS.**

**. ANOGENITAL LESIONS IN OUR SETTING
AFFECTED MORE FEMALES (ASUQUO ET AL 2006).**

**. HUMAN PAPILLOMA VIRUS INDUCED SCC MOST
OFTEN MANIFEST AS WARTY GROWTH ON THE
VULVA, PENIS, PERINAL, PERIUNGAL AREAS
(SAHN AND SCHMULTS 2009)**



. TWO PATIENTS, FIGURE 3 AGED 51 YEARS AND THE YOUNGEST PATIENT AGED 7 YEARS PRESENTED AS WARTY GROWTH AND AURICULAR MASS (POLYP) POSSIBLY IN KEEPING WITH VIRAL AETIOPATHOGENESIS.

(C) . TWO DARKLY PIGMENTED PATIENTS PRESENTED WITH SCALP LESIONS



TREATMENT/OUTCOME



- **LATE PRESENTATION WITH ADVANCED LESION ACCOUNTED FOR POOR OUTCOMES**

 - **THIS UNDERSCORES THE NEED FOR EARLY INSTITUTION OF PREVENTIVE MEASURES**
 - . **EARLY PROTECTION OF ALBINOS FROM SOLAR RADIATION.**
 - . **CHRONIC ULCERS – THE AIM IS TO PROVIDE EARLY SKIN COVER.**
- EARLY PRESENTATION, DIAGNOSIS AND TREATMENT.**

CONCLUSION



- **CLINICAL PATTERN OF SCC IN OUR SETTING REVEALED PATIENTS IN 2 SUBSETS; MARJOLIN'S AND NON MARJOLIN'S.**
- **RISK FACTOR IN THE MU SUBSET IS CHRONIC TRAUMATIC ULCERS.**
- **IN THE NON-MU SUBSET – SOLAR RADIATION AS A RISK FACTOR IN ALBINOS, OTHERS NON-SOLAR.**



- **LATE PRESENTATION WITH ADVANCED LESIONS WERE DUE TO SOCIO-CULTURAL BELIEFS, IGNORANCE AND POVERTY.**
- **EDUCATION HIGHLIGHTING POSSIBLE RISK FACTORS, EARLY PRESENTATION, DIAGNOSIS AND TREATMENT IS ADVOCATED FOR IMPROVED OUTCOMES WITH THE ATTENDANT DECREASE IN HEALTH CARE COST OF SCC.**



THANK YOU!