*Journal of Anatomical Sciences*

*Email:anatomicaljournal@gmail.com*

*J Anat Sci 5 (1)*

# Skin Carcinoma in the Niger Delta Region of Nigeria [A Referral Study]

**Gbeneol TJ, Kombo BB**

Department of Surgery, Faculty of Clinical Sciences, College of Health Sciences, University of Port Harcourt, Choba, Rivers State, Nigeria.

**Corresponding Author:** Dr. Tombari Gbeneol
Tel: +2348033426025

## ABSTRACT

Skin carcinoma are malignant out-growths of the epidermis and are primarily basal cell or squamous cell carcinomas, with risk factors among ultraviolet light, light coloured skin, age, male gender, irradiation and impaired immunity. This paper brings to the fore the pattern of skin carcinoma in the Niger Delta region using the parameters of age, sex, tumor type/site and histologic types. A five-year retrospective study of 79 cases from referral hospitals in Port Harcourt using inclusion criteria of patient age, sex and anatomic site of cancer. Histological diagnosis/staging was done based on WHO classification. 38 of the 79 studied cases were skin carcinomas (48:1%) with squamous cell carcinoma accounting for 32 (84:2%) and basal cell for 6 (15:8%), with age ranges from 24 to 81 years. The male to female ratio was 23:15 with the greatest number in the 30-39 years bracket. In our study, the incidence of squamous cell carcinoma in our environment far outweighed that reviewed by literature. We deduce that this may be due to low reportage/presentation of basal cell carcinomas, which are not as malignant as squamous cell carcinomas.

**Key Words:** Carcinomas, basal cell, squamous cell, Niger Delta.

## INTRODUCTION

Skin carcinomas are malignant outgrowths of the epidermal layer of the skin, an embryological derivative of the neuroectoderm of the peripheral nervous system[1]. Carcinomas of the skin could primarily be, depending on the part of the epidermis which they originate from, basal cell carcinomas or squamous cell carcinomas[2].

Basal cell carcinomas account for about 80 percent of the incidence of skin cancers and it is the commonest type of cancer encountered clinically[3]. Basal cell cancers begin in the lowest layer of the epidermis, the basal cell layer. It usually begins on exposed skin, such as the head and neck. Basal cell carcinoma was once found mostly in middle-aged or older people, but the incidence in the younger population is rising[3]. Basal cell carcinomas are slow-growing cancers are very rarely metastasize. Also, the rate of recurrence of basal cell carcinomas post therapy is over 50 per cent[2].

Squamous cell carcinomas initiate in the squamous cells in the upper part of the epidermis, accounting for about 2 in 10 skin cancers[2]. It most often starts on skin that has been sun-exposed, like the face, ears, neck, lips, and backs of the hands. It can also start in scars or chronic skin sores elsewhere. Less often, it forms in the skin of the genital area. Squamous cell carcinomas are more likely than basal cell carcinomas to metastasize to fatty tissues just beneath the skin and to nearby lymph nodes, though this is uncommon[3].

Skin cancers are classed into two major groups based on clinical presentation; Melanomas and Keratinocyte cancers[4]. Melanomas originate from melanocytes. Most skin cancers though are keratinocyte carcinomas because their cells look a lot like keratinocytes. Less common types of skin cancer, which account for less than 1 percent of clinical cases, include Merkel cell carcinoma, Kaposi sarcoma, Lymphoma of the skin, Skin adnexal tumors and Sarcomas [soft tissue cancers].

Local reports of the incidence of skin cancers are isolated[5], with predominant data from Western civilizations[6]. Risk factors[7] for basal and squamous cell skin cancer include but are not limited to ultraviolet [UV] light, light-colored skin, age, male gender [men are about twice as likely as women to have basal cell cancers and about 3 times as likely to have squamous cell cancers], arsenic-containing chemicals and creams, irradiation, presence of an existing skin cancer, hypertrophic scars, psoriasis treatment, smoking, impaired immunity, HPV infection and certain diseases like xeroderma pigmentosum.

Staging[8] for basal and squamous cell skin cancers is especially done for patients with a high risk of metastasis; squamous cell cancers, organ transplants and HIV-positive patients. Based on the stage of the

cancer and other factors, treatment options may include surgery, irradiation and chemotherapy.
This paper objectifies the pattern of skin carcinomas in the Niger Delta Region, Nigeria using parameters of age, sex, tumour type and site, and histologic types.

## MATERIALS AND METHODS

A 5 year retrospective study of 79 cases of different carcinomas seen at several privately-run hospital and at the two specialist referral hospitals in Port Harcourt; the University of Port Harcourt Teaching Hospital and Braithwaite Memorial Hospital was carried out. using the inclusion criteria, 38 of the cases were skin cancers. To make a histological diagnosis, the tissues were fixed in 10 per cent formalin, embedded in paraffin wax, sectioned and stained with haematoxylin and eosin staining. Variable parameters considered for the study were patient age, sex, anatomic site of cancer and histologic type based on WHO classification[8].

## RESULTS

A total of 79 malignant tumors were diagnosed with 38 of them being skin carcinomas [48.1%]. Of the skin carcinomas, squamous cell carcinomas accounted for 32 [84.2%] of case and basal cell carcinoma accounting for the rest [15.8%]. The youngest patient was a 24 year old male with squamous cell carcinoma and the oldest was a 81 year old female with adenosquamous carcinoma.

Table 1 shows the age and sex distribution of the skin cancer in the Niger Delta. The male to female ratio was 23: 15 [60.5:39.5]. There were 3 [7.9%] cases of patients less than 30, 5 [13.2%] cases of patients aged 30 to 39 years, 11 [29.0%] cases of patients aged 40 to 49 years, 9 [23.1] cases of patients aged 50 to 59 years, 7 [18.4%] cases of patients aged 60 to 69 years, 1 [2.6%] case of a patient aged 70 to 79 years and 2 [5.3%] cases of patients aged above 80 years.

**Table 1:** Age and sex distribution of the skin cancer in the Niger Delta

| | <30 | 30 -39 | 40 -49 | 50 -59 | 60 -69 | 70-79 | >80 |
|---|---|---|---|---|---|---|---|
| M:F | 2:1 | 3:2 | 7:4 | 4:5 | 5:2 | 0:1 | 2:0 |
| TOTAL[%] | 7.9 | 13.3 | 29.0 | 23.1 | 18.4 | 2.6 | 5.3 |

Table 2 shows the sex distribution and frequency of the various histological types of skin cancers in the Niger Delta. There were 17 [44.7%] cases of squamous cell carcinoma, 4 [10.5%] cases of adenosquamous carcinoma, 6 [15.8%] cases of basal cell carcinoma, 5 [13.1%] cases of keratinizing squamous cell carcinoma, 3 [7.9%] cases of non keratinizing squamous cell carcinoma and 3 [7.9%] cases of metastatic squamous cell carcinoma.

**Table 2:** Sex distribution and frequency of the various histological types of skin cancers in the Niger Delta

| | | |
|---|---|---|
| Squamous cell carcinoma | 17 | 44.7% |
| Adenosquamous carcinoma | 4 | 10.5% |
| Basal cell carcinoma | 6 | 15.8% |
| Keratinizing squamous cell carcinoma | 5 | 13.1% |
| Non-keratinising squamous cell carcinoma | 3 | 7.9% |
| Metastatic squamous cell carcinoma | 3 | 7.9% |

## DISCUSSION

A total of 38[48.1%]of the 79 malignant tumors diagnosed were skin carcinomas comprising squamous cell carcinomas [84.2%] and basal cell carcinoma [15.8%], with age range of 24 to 81 years and male to female ratio of 23: 15 [60.5:39.5]. The distribution of the different types of skin carcinoma was squamous cell carcinoma [17, 44.7%], adenosquamous carcinoma [4, 10.5%], basal cell carcinoma [6, 15.8%], keratinizing squamous cell carcinoma [5, 13.1%], non keratinizing squamous cell carcinoma [3, 7.9%] and metastatic squamous cell carcinoma [3, 7.9%].

In our study, the incidence of squamous cell carcinomas far outweighed theat of squamous cell carcinoma. This is not in keeping with literature, which report that basal cell carcinomas account for about 80 percent of the incidence of skin cancers and it is the commonest type of cancer encountered clinically[3]. We extrapolate that this may be due to low reportage secondary to non-presentation of basal cell carcinoma cases considering that squamous cell carcinomas are more likely than basal cell carcinomas to metastasize[3] and basal cell carcinomas are slow-growing cancers are very rarely metastasize[2].

Summarily, the pattern of skin carcinomas in the Niger Delta Region using parameters of age, sex, tumour type and site, and histologic types.

## REFERENCES


1. William PL, Wendel-Smith CP. Basic Human Embryology. 2nd Ed, England: Pitman Med Pub, 1978: 40-45
2. Rosai J [ed]. Soft tissues. In: Ackerman's surgical pathology. 9th ed. Vol II. Philadelphia: Mosby, 2004: 2237-2371
3. Curtter SJ, Young IL. Third National cancer survey incidence data. National Cancer Institute [NCI] Monograph 1975; 41: 1-3
4. Hicks BA, Hensle TW, Nurbige KA, Oeter Almer R. bladder management in children with genital sarcoma. J Paediat Surg 1993; 28: 1019-1022
5. Seleye-Fubara D, Nwosu SO, Bob-Yellowe E. Soft tissue sarcomas in the Niger Delta Region of Nigeria [A referral hospital's study]. Nig J Med 2005; 14: 188-194
6. Malone M. soft tissue sarcoma in childhood. Histopathol 1993; 22: 203-216
7. Enzinger FM, Weiss SW. Soft tissue tumours. 2nd ed. St. Louis CV: Mosby, 1998: 1-964
8. Enzinger FM, Lattes R, Torloni R. histological typing of soft tissue tumours. International classification of soft tumours [3] Geneva; WHO, 1969Weiss SW. Soft tissue tumours. 2nd ed. St. Louis CV: Mosby, 1998: 1-964