

PRIMARY MALIGNANT SKIN TUMORS IN NIGERIANS

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Skin cancers, although uncommon, do occur in black Africans. Available literature on this subject from black African populations is scant, suggesting diminished interest. Eighteen cases of malignant skin tumors seen at the University of Port Harcourt Teaching Hospital over 3 years (1984 to 1987) were analyzed for diagnoses, site of tumors, sex, and age. Seven patients (39%) had malignant melanomas affecting only the soles of the feet, while the same number had squamous cell carcinomas widely distributed in various parts of the body. Basal cell carcinomas were found in four (22%) patients with face lesions. Only three albinos were in the series, and all three had squamous cell carcinomas. Melanin protection against sun-induced skin cancers gives a false sense of well-being. The need for renewed interest of the subject is emphasized. (*J Natl Med Assoc.* 1991;83:345-348.)

Key words • skin cancer • malignant skin tumors • melanin • basal cell carcinomas

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Little information is available about skin cancers in Nigerians and among the black peoples of the world. The belief that skin cancers are relatively uncommon among blacks may account for the diminished interest in this subject. Ultraviolet radiation from the sun has been blamed as a major factor in the causation of skin tumors.¹ Melanin, on the other hand, offers protection from ultraviolet damage of the skin, but this protection is not foolproof.²

This article reviews a series of 18 skin cancer patients and reports the local experience in a black African population.

PATIENTS AND METHODS

Eighteen patients with various types of skin cancers seen at the University of Port Harcourt Teaching Hospital between 1984 and 1987 were studied. The case files and histology reports were analyzed for sex, age, type of malignancy, and site affected.

RESULTS

The Table shows a breakdown of the 18 patients studied. No definite pattern of age distribution emerged from the study, but the youngest patient was 35 years old, and the oldest patient was 75. Only three albinos were seen, and all had squamous cell carcinomas (Figure 1). Two of the squamous cell carcinomas were Marjolin's ulcers complicating unstable scars of many years duration (Figures 2 and 3). Figures 4 and 5 show

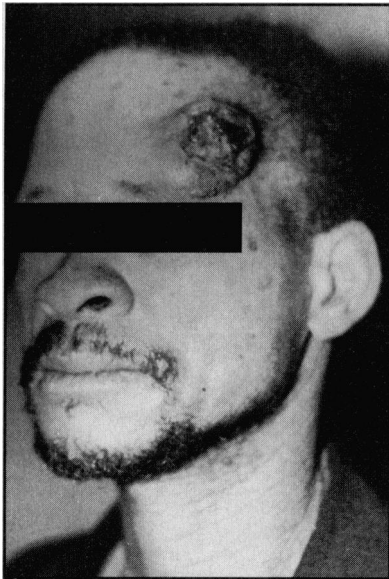


Figure 1A. Squamous cell carcinoma on the forehead of an albino.

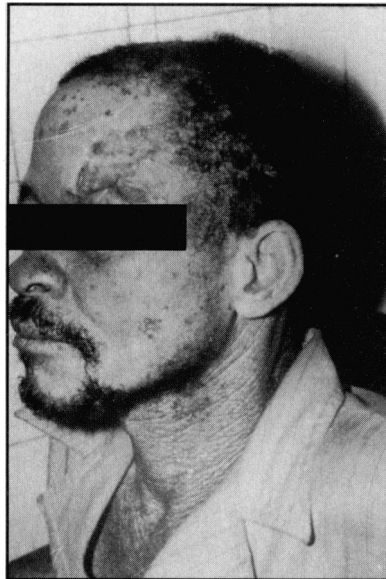


Figure 1B. Same patient after surgical excision and skin grafting.

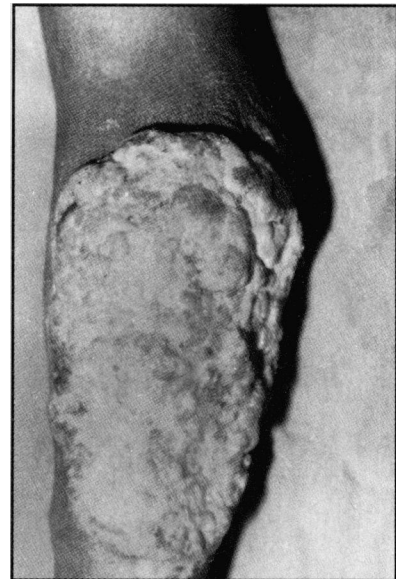


Figure 2. Marjolin's ulcer invading bone on the elbow of a 75-year-old man. Ulcer arose from a postburn scar of 50 years duration. Treatment was above elbow amputation.

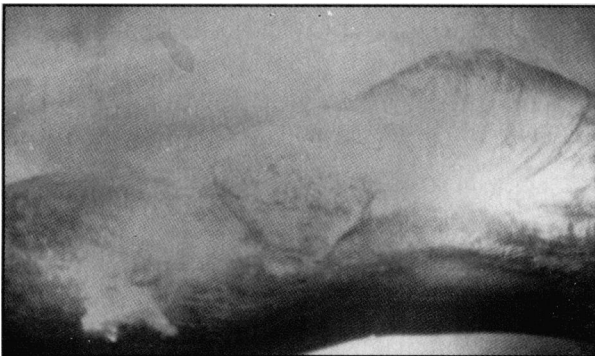


Figure 3. Marjolin's ulcer arising from an unstable scar of over 15 years duration following a traffic accident. Treatment was complete excision and skin grafting.

TABLE. PATTERN OF MALIGNANT SKIN TUMORS AT UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL

Type of Skin Cancer	Female	Male	Total	%	Area Affected
Malignant melanoma	5	2	7	39	Soles of the feet
Basal cell carcinoma	3	1	4	22	Face
Squamous cell carcinoma	3	4	7	39	Various
Total	11	7	18	100	

basal cell carcinomas on the face treated with surgical excision. The malignant melanoma patients in the series, all with plantar lesions (Figure 6), refused surgery. Most of these patients opted for "traditional medicine," and therefore were neither treated nor followed up.

DISCUSSION

The results reported in this article are preliminary and therefore should be interpreted with caution. The cases are few and may not be a true reflection of the prevalence and pattern of the disease in the community. As more data are collected over the years, the true

pattern will emerge. However, some facts are worth noting at this early stage.

Most of our patients with skin cancers have presented with fungating lesions. This is because the early symptoms were either ignored by the patients or not recognized by the first practitioners who saw them. In the African experience, this is not peculiar to cutaneous malignancies alone. Stimulating awareness among practitioners and public enlightenment campaigns might lead to early reporting and diagnosis.

Sunlight as an etiological factor in the causation of

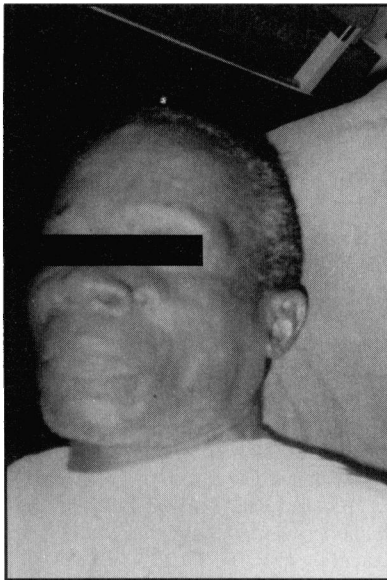


Figure 4. Basal cell carcinoma (nodular type). The wound was excised and closed directly in the nasolabial fold.

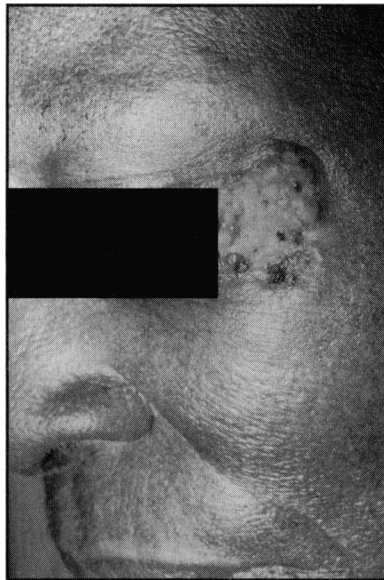


Figure 5A. Basal cell carcinoma.

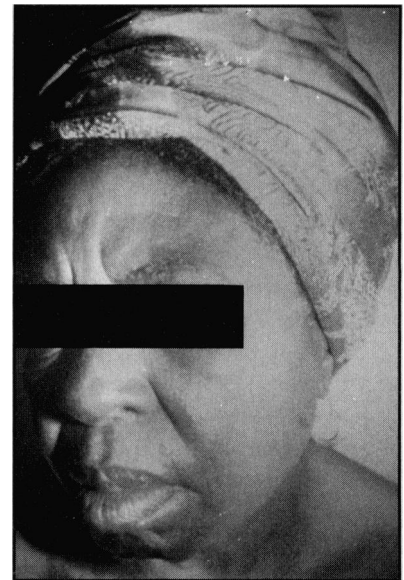


Figure 5B. Same patient after excision and postarticular whole graft.

malignant melanoma of the skin, especially in whites, is very well-documented.³⁻⁶ In fact, the incidence of malignant melanomas among whites in sunbelt areas of the world is increasing at alarming proportions.⁷ African albinos, although susceptible to skin cancers, seem not to share this increased risk for malignant melanoma with white. In fact, Oluwasanmi points out that melanomas are very rare in albinos.² Of the three albinos in our series, none had malignant melanomas. When Africans suffer from malignant melanomas, the most common site affected is the sole of the foot.⁸ Approximately 39% of our patients had malignant melanomas; all of these malignant melanomas were on the soles of the feet, sparing the normal pigmented skin. We have no explanation for this, but one theory is that Africans walk bare-footed and sustain repeated trauma to the soles of their feet. This trauma, the theory claims, initiates plantar melanoma. This theory has no proof as plantar melanomas have been seen in both white and African patients who wear shoes regularly.

Although it has been claimed that basal cell carcinomas do not affect black Africans, 4 of 18 patients in this study had such carcinomas. Therefore, we agree with Oluwasanmi that black Nigerians do suffer from rodent ulcers.² Also, because the face (part of the body exposed to sun rays) is commonly affected, it seems to suggest actinic rays are the culpable



Figure 6. Typical plantar malignant melanoma lesion.

carcinogenic factor, and melanin protection against basal cell carcinoma is not 100%. We have preferred surgical treatment to radiotherapy for two reasons: surgical excision offers an opportunity for histological diagnosis, and we do not have radiotherapy facilities in our center and have not encouraged our patients to travel over 850 km to the nearest center with this capability. The blemish left by surgical excision has not inhibited us.

Albinos were surprisingly few in this study, and all three in this study had squamous cell carcinomas. Because albinos are known to be at high risk,^{9,10} encouraging them to be seen routinely at the dermatology clinic may improve the early detection rate from this group.

Although the patients in this study presented late, all basal cell and squamous cell carcinomas were treated with surgical excision and skin grafting with good results. On the other hand, the malignant melanoma patients rejected surgical treatment despite persuasion. If these patients had presented early with the lesions, excision biopsies could have been taken immediately and treatment could have been started. Unfortunately, our patients do not understand why they should lose a leg or have major surgery for "simple black nodules" on the sole of their foot.

Marjolin's ulcers (scar cancers) are preventable cancers that usually arise from scar tissues of many years duration, especially when the scars are unstable. Adequate aggressive treatment of leg ulcers and burn wounds, both of which are very common in this environment, will prevent the formation of poor quality scars from which scar cancers may arise.

Literature Cited

1. Emmett EA. Ultraviolet radiation as a cause of skin

tumors. *Crit Rev Toxicol.* 1973;2:211-255.

2. Oluwasanmi JO. In: *Plastic Surgery in the Tropics.* London, England: MacMillan Press; 1979:89.

3. Teppo L, Pakkanen M, Hakulinen T. Sunlight as a risk factor in malignant melanoma of the skin. *Cancer.* 1978;41:2018-2027.

4. Davies NC. Sunlight and melanomas. *Lancet.* 1971;1:803-805.

5. Lancaster HO, Nelson J. Sunlight as a cause of melanoma: a clinical survey. *Med J Aust.* 1975;1:452-456.

6. Lee JAH. Sunlight and the aetiology of malignant melanoma. In: McCarthy WH, ed. *Melanoma and Skin Cancer, Proceedings of the International Cancer Conference, Sydney 1972.* Sydney, Australia: VCN Blight; 1972:983-994.

7. Cosman B, Heddle SB, Crikelair GF. The increasing incidence of melanoma. *Plast Reconstr Surg.* 1976;57:50-56.

8. Lewis MG. Malignant melanoma in Uganda, (the relationship between pigmentation and malignant melanoma in the soles of the feet). *Br J Cancer.* 1967;22:483-495.

9. Ofodile A, Oluwasanmi JO. Management of skin tumors in albinos. *Nigerian Medical Journal.* 1979;9:589-591.

10. Oluwasanmi JO, Williams AO, Alli AF. Superficial cancer in Nigeria. *Br J Cancer.* 1969;23:714-728.