

# Malignant Melanoma In Cameroon

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## Abstract

**Introduction:** Little information is available on the characteristics and epidemiology of malignant melanoma in Cameroon and sub-Saharan Africa in general. The absence of accurate information prompted this study. A rising trend in the incidence of malignant melanoma has been highlighted, especially in developed countries.

**Materials and Methods:** Over a period of 9 years (December 1996 to August 2005), we evaluated patients with malignant melanoma diagnosed clinically and confirmed by histopathology in our Dermatology and Surgical Clinics. Data evaluated included information on age, sex, delay in presentation, sites of lesions, available treatment and survival.

**Results:** Over eight years 560 cases of cancer were diagnosed, (57/560) 10.2% of which were skin cancers and (25/560) 4.46% were confirmed malignant melanoma. Most of the lesions (21/25) 81% were on the lower limbs. 3 lesions were buccal and 1 abdominal. 20/25 (80%) were on the soles of the feet. 8 patients (32%) presented with advanced disease and generalized metastases. Two year survival rate was 35%. Local excision was offered to 8 patients with relapses in 4 of them within 6 months.

**Conclusion:** Malignant melanoma represents 4.46% of all cancers registered and is the most frequent skin cancer. The prevalence of malignant melanoma might be higher than our present findings. The anatomical distribution and the advanced stage of disease at presentation reflect the pattern of malignant melanoma in black populations elsewhere. An awareness campaign will provide enlightenment to the black cancer. This will lead to early presentation and improved survival.

## INTRODUCTION

Malignant melanoma (MM) is a tumour of the epidermal melanocytes. The incidence is widely associated with sun exposure (1, 2, 3). The highest incidence is seen in Caucasians (1, 3, 4). The first recorded case of the black cancer in the African continent was at Mengo Hospital Kampala, Uganda by Sir Albert Cook in 1904. With time many more cases have been described. The prevalence of MM is not known in many African countries south of the Sahara, as some of these countries may not boast of a cancer registry. Capponi M published a record of cancer in Cameroon in 1953 (5). In the Negroid races, most melanomas have been described on the lower limbs especially on the plantar surfaces of the feet (1, 6, 7). These parts of the body are not exposed to the sun.

The absence of population based data on the incidence of MM in Cameroon prompted the study to determine the incidence and the demographic characteristics of the patient

with MM and the anatomical sites.

Data evaluated included information on age, sex, site of lesion, delay in presentation and out-come.

## MATERIALS AND METHODS

Over a period of 9 years, December 1996 to August 2005, we evaluated the case notes of all cases of MM seen at the University Teaching Hospital Yaoundé.

Clinical and investigative records of patients histopathologically confirmed with MM were reviewed in detail. Epidemiological and clinical characteristics observed are here presented.

All ethical standards were respected.

## RESULTS

A total of 25 cases of MM were studied. There were 11 males and 14 females. 24 (96%) were Cameroonians and one

was a Lebanese.

The age range was 26 to 82 with a mean age of 64 years. 18 (72%) were aged above 50 years.

During the study period 560 cases of cancer were seen including 57 cases of skin cancers. From these figures, MM was (25/560) 4.46% of all cancers and (25/47), 53% of all skin cancers.

The sites of lesions were predominantly on the lower limbs (21/25) 84%. Twenty (80%) were on the plantar surfaces of the feet, while one was on the ankle. Three, 12% were in the mouth, (one on the upper lip and two in the oral cavity). One was on the anterior abdominal wall in the Lebanese.

**Figure 1**



## DISCUSSION

There is no documentation on the presentation of MM in Cameroon.

Numerous authors have shown that the overall incidence of MM in blacks is lower than in whites (1, 8, 9, 10, 11, 12).

Rahman Zietal (13) and Byrd K M et al (14) observed that MM

is rare in blacks while Reintgen et al (8) found that MM may be 20 times more frequent in the American white than black population.

MM may not be rare in Cameroon; there may be poor reporting and lack of awareness. Most of the patient did not know the significance of a chronic black ulcer on the foot. This may have been responsible for few people reporting at early stages.

We found lesions on the soles of the feet in 80% (20/25) cases. It has been well documented that most MM lesions in blacks are on the soles and palms (1, 5, 6). Onuigbo found that MM was mainly on the feet in Nigerians (6, 12).

A study of MM in Uganda has also shown the predominance of acral lesions (12). The well defined anatomical preference for the lower limbs especially plantar surfaces of feet, which are not usually exposed to the sun confirms little or no role of sun exposure in these cases.

Repeated trauma and constant pressure on the weight bearing areas have been incriminated (12, 15, 16). It is also possible the lesions may arise from melanotic naevus and hyperpigmented macules, common on the plantar surfaces in blacks. Pigmentation on the plantar surfaces has been studied in Ugandan Africans and varying degrees of pigmentation were documented (17). According to this study, grade III pigmentation (discrete small areas of pigmentation with clear cut margins which occur at about 18 to 20 years of age) was incriminated. On the contrary, in European studies, there are fewer melanomas on the feet, the majority of the tumours occur on the other body sites (17, 18, 19).

Infrequent shoe wearing has been incriminated. Oettle (1996) suggested that shoe wearing was accompanied by decrease in melanoma incidence (15), even though a study in Uganda did not find any association between melanoma incidence and shoe wearing (17).

Could there be a genetic predisposition linked to the development of acral melanoma in blacks? Lane-Brown et al (20) have looked at genetic predisposition to MM and other cancers in Australia. No genetic studies have been done in blacks in relation to MM. It is also known that MM is common in fair skinned Caucasians (21, 22) especially of the Celtic decent (23). On the other hand, the prevalence of MM in African albino Bantus in the Transkei is low (24, 25).

The mean age at presentation was 64 years, with an age range of 26 to 82 years. Majority of the patients, 64% were

between the 5th and 8th decades. This is the age range of MM patients in most of the studies done in blacks (26, 27, 28, 29).

Eight of the patients, 32% presented with clinically advanced disease with generalized metastasis involving lymph nodes and the liver. The others had stage II and III disease.

The 8 patients with generalized metastasis survived less than 12 months. Three patients were offered amputation and never came back, for fear of losing a limb. These patients were lost to follow up. For the remaining 14 patients, the 2 year survival was 35%.

Late presentation is common in blacks with melanoma (7, 8, 14). The cause may be ignorance and fear of amputation and alternate remedies. Tumour thickness is one of the factors that predicts prognosis and this knowledge has prompted the Early Detection (ED) campaigns conducted in developed countries.

There were 3 cases of oral MM. Could this be associated with chewing of medicinal herbs or tobacco consumption?

### CONCLUSION

We conclude that the anatomical predilection for the soles in MM patients in Cameroon is not different from what is seen in other black populations.

Prognosis is poor because of late presentation.

Information and education of the uninformed population may draw awareness to this malignant tumour in blacks and in Cameroonians in particular and will decrease case fatality.

More extensive studies should be carried out to evaluate the behaviour of MM in Cameroonians.

Onuigbo (6) in his study suggested the prophylactic excision of suspicious lesions. In our opinion, this is better than the “wait and see” attitude. An excision biopsy is nothing compared to the loss of a limb especially in a setting where many practice manual labour.

Studies should also be done to look into the genetic predisposition of acral MM.

Our study may be limited by inaccurate reporting, incorrect records, poor clinic attendance and a small sample size.

Nonetheless, MM in Cameroon is similar to what is seen in

other black populations; lesions are acral in the majority of cases, and the presentation is after the 5th decade with advanced disease.

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