ABSTRACT: Background:

Melanoma is the commonest primary skin malignancy, the incidence of which is rising globally. Whereas in the Europe, USA, New Zealand and Australia, Ultraviolet light from exposure to sunlight, in Sub-Saharan Africa trauma is being implicated. The superficial spreading type is the commonest type and affects head and neck region, while in Africa the nodular variety is the commonest affecting the foot. Patients and Methods: The study reviewed patients diagnosed with cutaneous melanoma and managed in the University of Maiduguri Teaching Hospital (UMTH) between 2004 to 2013. All patients had surgery ranging from wide local excision to amputations with regional lymphnodes dissection under anesthesia with prophylactic antibiotics (ceftriaxone and metronidazole). Results: A total of 45 patients were reviewed with females to male ratio of 1.37:1 age ranged from 33 to 100years and a mean of 59 years. The peak age group was 60 – 69years accounting for 33.33%. Site affected were foot in 88.89%, with 60% on the left foot, and 28.89% right foot. Groin in 6.67%, thigh in 2.22%, and scalp in 2.22%. The histological were nodular in 55.56%, superficial spreading in 28.89%, lentigo maligna in 11.11%, and acral lentigenous in 4.44%. Clinical stage at presentation was stage I in 24.44%, stage II in 60%, and stage IV in 15.56%, out of the 7 patients in stage IV 2 had metastases to the lungs, 4 to the liver and 1 had both hepatic and pulmonary metastases. The procedures done were radical/wide local excision with resection margin of 3cm, with regional lymphnodes dissection in 38.44%, and toileting procedure in 15.56%. Out of the 84.44% that had surgery, curative surgery was in 33.33% while 51.11% had palliative procedure. Skin cover was achieved by primary closure in 40%, flap rotation in 28.89%, and skin grafting in 15.56%. The 7 patients that had toileting procedure skin cover were achieved by flap rotation. The postoperative complications were surgical site infection in 11.11%, and hematoma in 6.67%. The mortality was 4.44%. A total of 26.67% patients died within one year of follow up. The one year survival rate was 68.89%. Conclusion: Cutaneous melanoma is common and the incidence is rising however in the developing countries late presentation is the norm. Effort should be directed towards early presentation by raising public awareness, and high index of suspicion among clinician

KEYWORDS:

Cutaneous Melanoma, Presentation, Management Outcome, Sub-Saharan Africa.
INTRODUCTION

In the last two decades the incidence of cutaneous melanoma has increased throughout the World at the rate of about 5% per year\(^1\). The incidence rates showed substantial worldwide variation, with the highest incidence in Auckland, New Zealand, and the lowest in South-East Asia, Japan and Singapore\(^2\-^3\). In Kano Northern Nigeria, melanoma account for 34% ranking 2\(^{nd}\) to squamous cell carcinoma of the skin\(^4\). Plantar melanoma is common in Sub-Saharan Africa\(^5\-^6\) supporting trauma as the leading etiological factor, as opposed to solar radiation in Europe\(^7\). Melanoma originates from neural crest-derived melanocytes present in the epidermis and sometimes the dermis\(^8\). The progression of melanocytes to melanoma involves sequential steps: development of benign naevocellular nevus, preneoplastic dysplastic nevus, primary melanoma, and metastatic melanoma\(^9\). There are four main types of cutaneous melanoma superficial spreading, Nodular, Lentigo maligna, and Acral lentigenous melanoma. The treatment options are limited due to their poor chemo and radio sensitivity. Surgery by way of wide local excision is the mainstay of treatment with prospect of immunotherapy via Interferon alpha - 2b, Interleukin – 2, and granulocytes - macrophage colony stimulating factor providing cure in the near future\(^10\). This study presents our experience in the management of cutaneous melanoma in North Eastern Nigeria.

PATIENTS AND METHODS

The study reviewed all patients diagnosed with cutaneous melanoma and managed in the University of Maiduguri Teaching Hospital (UMTH) between 2004 to 2013. Permission for the study was given by the hospital Research and Ethics Committee. Written informed consent was obtained from all patients. Information was extracted from their clinical and laboratory notes and data analyzed using SPSS version 16. The diagnoses was from clinical and tissue biopsy. Supportive investigations done where x – ray of the affected site, chest x- ray, abdominopelvic ultrasound scan, full blood count blood chemistry urinalysis, and
electrocardiogram. Others where computerized tomography scan, and magnetic resonance imaging where applicable. All patients had surgery ranging from wide local excision to amputations with regional lymphnodes dissection under anesthesia with prophylactic antibiotics (ceftriaxone and metronidazole).

RESULTS

A total of 146 patients with primary cutaneous malignancies, 45(30.82%) were melanomas of which 26 were females and 19 males with female to male ratio of 1.37 :1 age ranged from 33 to 100 years and a mean of 59 years for all patients, and 56.85 and 61.95 years for females and males respectively. The peak age group was 60 – 69 years accounting for 15(33.33%) table 1. Patients occupation were farming in 27(60%), cattle rearing in 11(24.44%), and artisan and petty traders in 7(15.56%). Pre-existing mole was seen in 3 (6.67%). Site affected were foot in 40(88.89%), with 27(60%) on the left foot, and 13(28.89%) right foot, out of the 40 that occurred on the foot 31 were in the sole, 4 in the toes, and 5 on the heel. Groin in 3(6.67%), thigh in 1(2.22%), and scalp in 1(2.22%). The histological were nodular in 25(55.56%), superficial spreading in 13(28.89%), lentigo maligna in 5(11.11%), and acral lentigenous in 2(4.44%). Clinical stage at presentation were stage I in 11(24.44%), stage III in 27(60%), and stage IV in 7(15.56%), out of the 7 patients in stage IV 2 had metastases to the lungs, 4 to the liver and 1 had both hepatic and pulmonary metastases. The procedures done were radical/wide local excision with resection margin of 3cm, with regional lymphnodes dissection in 38(84.44%), and toileting procedure in 7(15.56%). Out of the 38(84.44%) that had surgery, curative surgery were in 15(33.33%) while 23(51.11%) had palliative procedure. Skin cover was achieved by primary closure in 18(40%), flap rotation in 13(28.89%), and skin grafting in 7(15.56%). The 7 patients that had toileting procedure skin cover were achieved by flap rotation. The postoperative complications were surgical site infection in 5(11.11%), lymphedema in 3(6.67%), and hematoma in 3(6.67%). The mortality was 2(4.44%). Twelve (26.67%) patients died within one year of follow up. The one year survival rate was 68.89%.
DISCUSSION

Melanoma accounted for 31% of all skin malignancies in Maiduguri, comparable to other findings in the regions of 34% in Kano, 37.4% in jos\textsuperscript{11}. In this study melanoma is commoner in females in contrast to what was found in Calabar\textsuperscript{12}. The peak age group for melanoma in this series was the 7\textsuperscript{th} decades in variance with other reports\textsuperscript{13}. The current study found the foot as the commonest site supporting trauma as the possible etiology, as most of the patients were farmers and cattle rarers. Most of the lesions were in the sole and of Nodular type highlighting the pattern seen in Africans, and Asians. This type of melanoma is associated with non – solar factors such as trauma seen in African Americans and in Bantus resident in the urbanized townships of South Africa\textsuperscript{14}. Studies suggest from Africa suggest trauma as the major culprit in melanoma which may arise from existing epidermal melanosites\textsuperscript{15-16}, or preexisting mole\textsuperscript{17}. This study found similar trend as opposed to Europe and USA where albinism and solar radiation were implicated\textsuperscript{18}. Late presentation is the norm in our environment as most patients present with advanced disease. Surgical treatment remains the mainstay of treatment with adjuvant radio, chemo, and immunotherapy\textsuperscript{19}. Palliative isolated – limb perfusion chemotherapy with melphalan has shown promising results\textsuperscript{20}.

TABLE 1: Age distribution

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<th>Age (Years)</th>
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<tbody>
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REFERENCES


