

Case Report

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Guinea worm, Leg ulcer, and Malignant change in Nigeria: Case Report

Wilson IB Onuigbo^{1*} and Joseph O Ojukwu²

¹Department of Pathology, Enugu Specialist Hospital, Nigeria

²Department of Surgery, Enugu Specialist Hospital, Nigeria

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***Corresponding author:** Wilson IB Onuigbo, Department of Pathology, Enugu Specialist Hospital, Enugu 400001, Nigeria, Email: wilson.onuigbo@gmail.com

Abstract

The guinea worm infestation, which occurs in different parts of the world, has a penchant to form chronic ulcers in the leg. Now, light has been beamed much on its prevention. Therefore, this paper veers to an oddity, namely, the occurrence of malignant change in this condition. In this context, this may well be the first report of malignancy in this situation.

Keywords: Skin; Guinea worm; Ulcer; Malignant change; Developing community

Introduction

The guinea worm is unique not only in measuring up to 80 cm long but also in migrating in the subcutaneous tissues of the leg [1,2]. In the tropical book edited by Herbert Spencer [3], it was affirmed that "Secondary infection along the worm track commonly leads to abscess formation, and sinuses may develop which discharge pus and worm debris." As calcification is a possible change, what of malignancy? As Internet search was unavailing, a local case is deemed worthy of documentation.

Case Report

NE, a 50-year-old Igbo woman, attended the Enugu Specialist Hospital where she was seen by Dr Joseph Ojukwu, the co-author. The clinical summary was: "Complete necrosis of left tibia due to guinea worm." Therefore, left above knee amputation was carried out. The specimen was that of an exuberant ulcer which occupied most of the anterior portions of the middle three-fifths. There was a particularly purulent area just above the ankle medially. Microscopy revealed wide invasion by a well differentiated, highly keratinizing, and squamous cell carcinoma. An odd feature was focal calcification of the tumor in parts. Indeed, bizarre pleomorphism was also noteworthy.

Discussion

As I found out, by 1806 [4], the association of leg ulcer and malignant change could not be recognized. Today, much attention is being paid to it [5-7]. In all probability, awareness of its association with the guinea worm infestation will rise among clinicians and the pathologists worldwide in the future. Meanwhile, there is the notable occurrence of the tendency of squamous carcinoma to

exhibit bizarre giant cells. Incidentally, Evans described this feature years ago [8]. We are persuaded that, our case exhibited it nicely.

As for limb amputation, Brazil authors summed up the problem thus: "The unfavorable outcome (amputation) in patients with squamous cell carcinoma may be associated with aggressiveness of cancer and related co morbidities, and may also be influenced by factors such as access to public health, quality of care and patient's relationship with the disease" [9]. Incidentally, long ago, Picascia and Roenigk [10], while writing on "Surgical management of leg ulcers," did not include amputation! It was not carried out in our patient.

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