Bacillary Angiomatosis in An Immunocompetent Nigerian Adult: Case Report and A Brief Review of Literature

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Abstract

We report a case of a 30-year-old immunocompetent woman who presented to the clinic with a 5-year history of painless but progressive slow growing lesion on the left upper back region. Tissue biopsy and histology of the lesion were done, which revealed bacillary angiomatosis. Treatment was commenced with appreciable clinical improvement.

Bacillary angiomatosis is caused by Bartonelle henselae or Bartonella quintana and occurs mostly in immunosuppressed persons. Our case is a unique one because our patient was not immunocompromised, moreover, Bacillary angiomatosis is a rare presentation in our locality, Nigeria. It should therefore be suspected in immunocompetent patients who present with non-healing ulcers.

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Introduction

Bacillary angiomatosis (BA) is an uncommon vaso-proliferative lesion that is usually associated with immuno-suppression[(1, 2)]. Its first description as a neovascular proliferative lesion was in 1983 by Stoler, and this observation was amongst HIV positive patients[(3)]. BA is caused by gram-negative Bartonella henselae or Bartonella quintana bacteria[(4)].

This condition can involve the skin or other organs, and it commonly presents as a tumor-like mass[(5)]. The diagnosis and treatment of this condition may be delayed due to the tendency of patients in our locality to resort first to unorthodox forms of treatment. However, adequate treatment usually results in resolution of symptoms.

Case Report

We report a case of a 30-year-old patient, who observed a painless slow growing lesion in the left upper back region. She sought care at a traditional healing centre where the lump was incised, and unknown herbs applied. Following her continued treatment at this traditional centre, she noticed a progressive increase in the size of the lesion over the course of 5 years to involve the axilla anteriorly with some limitation of movement across her left shoulder, characterized by loss of abduction and extension with reduced degree of flexion.

The persistence of the lesion and impairment with shoulder movement prompted her presentation to our facility. She had no constitutional symptoms or weight loss. She equally did not have any other complaints suggestive of an underlying malignancy. She denied any contact with cats, and she had no notable insect bites, previous irradiation or burns to the region. She had no other co-morbidities.

The lesion is as shown in Figure 1. Other physical examination findings were normal except for a moderate limitation in the left shoulder movement, characterized by loss of abduction and extension with reduced degree of flexion. The full blood count, serum chemistry, liver function tests, Mantoux test, chest and left shoulder x-ray

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and abdominal ultrasound scan revealed no abnormalities. Serology for HIV and screening for hepatitis B and C were negative as well. She subsequently had multiple wedge biopsies from the lesion, and these were sent for histopathological examination while local wound care with normal saline and honey was commenced.

Histopathological examination was indicative of bacillary angiomatosis. It revealed an ulcerating cutaneous lesion characterized by lobules of proliferating capillaries with ectatic vessels lined by prominent endothelial cells in an oedematous stroma.

There were numerous neutrophils polymorphs with foci of micro-abscesses and nuclear dust, plasmacytic cells and histiocytes seen around the capillaries and interstitium. Occasional purplish grey bacterial colonies were also seen. No malignant cells were seen.

The patient was commenced on long-term erythromycin at 500mg three times daily. After the first four weeks of treatment, a marked reduction in the size of the lesion was observed (Figure 2). She is currently undergoing physiotherapy to improve function across the left shoulder and is still on intermittent follow-up.

Discussion

A review of the literature on the incidence of Bacillary angiomatosis in Nigeria did not yield any results, pointing to the rarity of this condition. Although Bacillary angiomatosis is more common in immune supressed individuals, it can also occur in immune competent patients [(6)].

This was the case in our index patient who had no history or laboratory results suggestive of any immunosuppression. As noted in a different case report on the occurrence of this condition following trauma to the face [(6)], it is possible that our patient may have had the infection transmitted by sand-flies or other means following her visit to the traditional healing home.

Some differential diagnosis to this clinical condition include pyogenic granulomas, angiosarcoma and Kaposi's sarcoma[(4)]. These conditions appear like Bacillary angiomatosis clinically. Therefore, histopathological analysis is required to differentiate these lesions. Immunohistochemistry with special staining and PCR tests to detect the bacterial DNA can further improve the validity of the histopathological assessments [(4)]. These specialized tests were however not done due to unavailability of the PCR test, and financial limitations as the patient could not afford these.

The final diagnosis was based on the clinical features, the histopathological report and the rapid improvement after initiation of the antibiotic treatment with erythromycin. Other antibiotics such as cephalosporins, penicillins, macrolides, aminoglycosides, and ciprofloxacin have also demonstrated varying efficacy in the treatment of this condition[(4, 5)]. Although our patient's lesions regressed spontaneously on commencing treatment, long term antibiotic use is usually advocated to prevent recurrence or systemic spread. Spread is however more common in the immuno-compromised.

In conclusion, Bacillary angiomatosis remains an uncommon condition especially in the immunocompetent patient. In the index case, the clinical appearance of this lesion was initially a source of concern, however the availability of medications to treat this condition led to its resolution.

Figure 1: Lesion involving the upper back region and extending medially. Taken at presentation

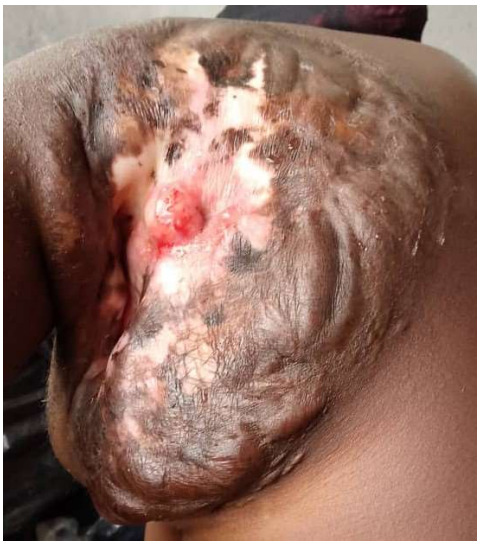

Fig 2: lesion 2years after commencement of treatment

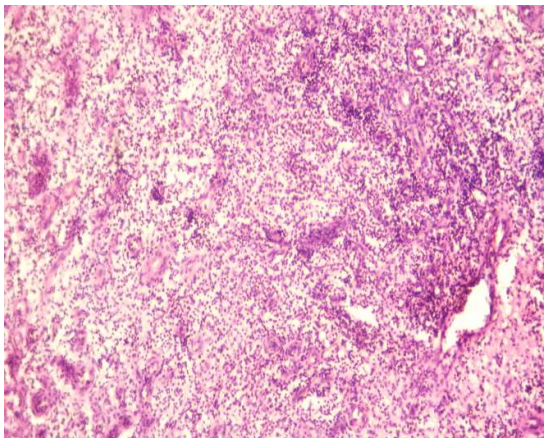

Fig 3: microslide of tissue

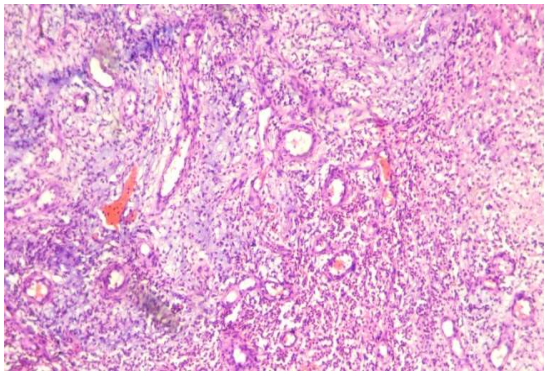

Fig 4: Microslide of tissue

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