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# A RARE CASE OF CUTANEOUS BACILLARY ANGIOMATOSIS

General Surgery

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## ABSTRACT

Bacillary angiomatosis is an uncommon disease due to infection with *Bartonella henselae* or *Bartonella quintana*. Bacillary angiomatosis is now only rarely seen in HIV positive individuals due to HAART therapy. This case illustrates that bacillary angiomatosis in HIV patients can still occur in the present day scenario despite significant improvements in retroviral therapy. In the present case a 39 yrs old HIV positive individual came with the history of multiple swellings over the dorsum of bilateral feet since 6 months, which were associated with bloody discharge. Patient was planned for excision of the lesions after appropriate investigations which confirmed the diagnosis of bacillary angiomatosis.

## KEYWORDS

Cutaneous, Bacillary Angiomatosis.

**Case Report:**
A 39 years old male patient presented with a history of multiple swellings over the dorsum of bilateral feet since 6 months which were insidious in onset and gradually progressive. Associated with intermittent, dragging type of pain.

Associated with bloody discharge from the swellings since 15 days. Patient had no history of recent trauma, no history of fever, no history of similar swellings elsewhere in the body.

Patient is a known case of HIV since 15 years and has been on HAART. Patient had history of pulmonary tuberculosis 5 years back for which he used 6 months of ATT. Patient is not a known hypertensive or diabetic.

On clinical examination the patient had 5 swellings of approximately 2*2 cm over the dorsum of the left foot and a single swelling of 2*2 cm over the dorsum of the right foot, which were firm in consistency, the skin over the surface over the swellings was normal, there was no ulceration, there was no local rise of temperature or tenderness.

**INVESTIGATIONS:**

| | |
|---|---|
| BLOOD PROFILE | Hb- 11.3g/dl<br>WBC- 4,100/microlit<br>Plt- 3,41,000/microlit<br>BGT- B+ve<br>INR-1.6<br>RBS-116mg/dl<br>Creat-0.96 mg/dl<br>Urea-10.8mg/dl<br>T.bil- 0.65mg/dl<br>D.bil- 0.18mg/dl<br>ALP- 106 U/l<br>Na- 138.4 meq/lit<br>K – 4.17 meq/lit |
| VIRAL MARKERS | HIV - POSITIVE<br>HBSAG - NEGATIVE<br>HCV- NEGATIVE |
| CD4 COUNT | 280 cells/ microlit |
| USG FINDINGS | Evidence of multiple ill defined, lobulated, hypo echoic lesions within few hyper echoic areas noted in the cutaneous and subcutaneous plane of dorsum of bilateral feet with no significant internal vascularity with peripheral hyperechoic inflammatory fat noted |
| FNAC | multiple clusters of spindle cells in a hemorrhagic background with plenty of neutrophils and suggested the possibility of fibrohistocytic lesion. |

The patient underwent excisional biopsy and the histological examination revealed:

Epidermis was hyperplastic with pseudo epitheliomatous hyperplasia. Dermis showed lobules of capillary sized blood vessels with dense neutrophil collections and areas of necrosis and hemorrhage. Endothelial cells were plump with clear cytoplasm with mild nuclear atypia, some of the foci show dilated, ectatic vascular channel which suggested the possibility of bacillary angiomatosis which was confirmed with silver staining.

The patient was kept on a 4 weeks course of doxycycline and underwent wide local excision of the remaining lesions.

**DISCUSSION:**
Bacillary angiomatosis is caused most commonly by *Bartonella quintana*. The spectrum of presentation includes cutaneous lesions, subcutaneous and osseous lesions and rarely peliosis of the liver and spleen. Bacillary angiomatosis was first identified in patients who were infected with HIV and had low CD4 counts. During the pre-HAART era it was relatively more common, but is typically very rarely seen now due to improvements in the treatment of HIV significantly due to the HAART regimen.

The most frequent site of involvement is the skin followed by bones and liver.

The transmission to humans is via body louse. Once they are inoculated by blood-sucking arthropods the gram-negative bacteria attach themselves to erythrocytes, monocytes, macrophages, and dendritic cells. The endothelial cell is an important target.

The ability to enter the erythrocytes protects these species from the host's adaptive and innate immune response. The CD4 T-helper cells produce interferon gamma and TNF alpha, which are responsible for eliminating the bacteria. The *Bartonella* species are capable of attenuating the host immune response thereby establishing a chronic asymptomatic carrier state.

The most common clinical presentation is a papule that develops into a reddish to a purple nodule, which appears vascular. The nodules can be of variable size. As a nodule enlarges, there is central ulceration and bleeding from it. The usual site is the upper extremities.

The most important differential diagnosis is Kaposi's sarcoma (KS) in HIV patients and pyogenic granuloma (PG) in immunocompetent patients.

Histological examination is used to confirm the diagnosis of bacillary angiomatosis. The H and E stain demonstrate endothelial-lined spaces. Warthin-Starry stain shows clumps of bacteria. Immunofluorescence assays (IFA) detecting immunoglobulin G (IgG) and immune enzyme assays (EIA) can also be used to determine the specific species subtype.

Cryotherapy, electrodesiccation with curettage, and surgical excision of solitary cutaneous lesions are useful along with treatment with antibiotics.

Bacillary angiomatosis if untreated can lead to complications such as gastrointestinal bleeding, encephalopathy, endocarditis, laryngeal obstruction and can rarely be fatal if not appropriately treated.

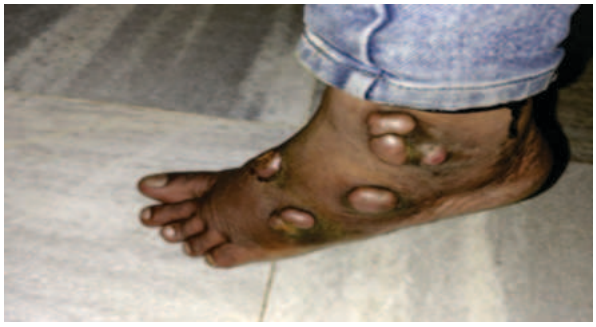

**Figure 1: Clinical photograph taken pre operatively.**

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