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Images in Infectious Diseases

Cutaneous lesions of bacillary angiomatosis

***Seow Chee Keong*[1], *Gan Wee Fu*[1] and *Hasmah Hashim*[2]**

[1]. Hospital Melaka, Internal Medicine Department, Melaka, Malaysia.
[2]. Hospital Melaka, Pathology Department, Melaka, Malaysia.

A 23-year-old man presented with a 1-month history of fever and a generalized body rash. The patient had an underlying human immunodeficiency virus (HIV) infection with a recent cluster of differentiation (CD) 4 T-cells count of 8 cells/mL and HIV-1 ribonucleic acid (RNA) 83,111 c/mL. Skin examination revealed numerous red-purplish skin papules and exophytic nodules (**Figure 1A**), with the largest measuring 3 cm in diameter (**Figure 1B**), distributed over whole-body surfaces. Hematoxylin and eosin (H&E) staining of biopsy specimens from skin lesions showed a circumscribed mass composed of proliferating capillaries with marked edema and necrosis on the surface (**Figure 1C**). Multiple bacilli were present throughout the mass and showed positive staining on Gram, Warthin–Starry (**Figure 1D**), and Giemsa. A diagnosis of bacillary angiomatosis (BA) was established following a skin biopsy. The skin lesions improved after a month of treatment.

BA is an opportunistic infection in immunocompromised patients, such as those with HIV, who are undergoing chemotherapy or post-transplantation. It is caused by the aerobic Gram-negative bacilli *Bartonella henselae* and *B. quintana*[1]. Skin lesions of BA can be mistaken for Kaposi's sarcoma or pyogenic granuloma. Thus, a skin biopsy is paramount to establishing a diagnosis. Diagnosis can also be rapidly established using polymerase chain reaction assays, serologic testing, or electron microscopy. The drugs of choice for the treatment of BA are usually doxycycline or macrolides[2]. Combination therapy may be necessary for patients with severe diseases.

FIGURE 1A: Multiple skin nodules present over the trunk.

Corresponding author: Dr. Seow Chee Keong. **e-mail:** ckseow92@gmail.com

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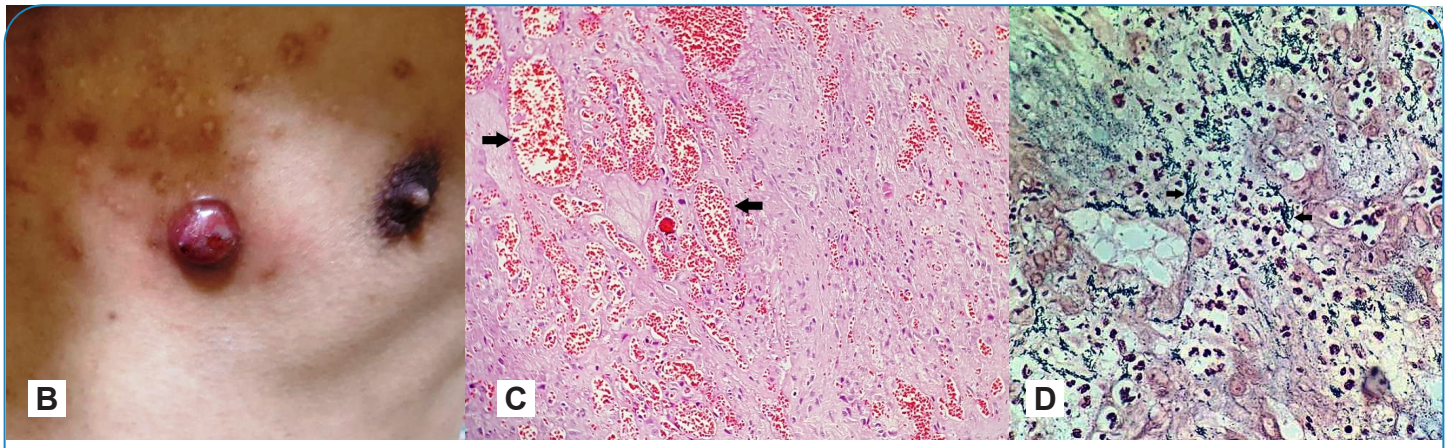

FIGURE 1B: Skin biopsy is done from this nodule.

FIGURE 1C: Multiple small blood vessels and ecstatic vessels filled with red blood cells (arrows) are seen under a microscope with hematoxylin and eosin (H&E) stain.

FIGURE 1D: Multiple bacilli (arrows) are seen under a microscope with Warthin–Starry stain.

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