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CUTANEOUS KAPOSI SARCOMA IN A 67-YEAR-OLD WOMAN WITH A HISTORY OF BREAST CANCER: A CLINICAL CASE REPORT

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Abstract

Literature Review: Kaposi's Sarcoma is a vascular tumor associated with Human Herpesvirus 8 (HHV-8), which typically occurs in immunocompromised individuals.

Case Report: We are reporting the case of a 67-year-old woman with a previous history of breast cancer who presented with multiple nodular purple lesions, in the brachial and femoral regions, 0.5-1 cm in diameter, for two months.

Histopathological and immunohistochemical analyses confirmed the diagnosis of Kaposi's Sarcoma.

Conclusion: This case highlights the need to be aware of Kaposi's Sarcoma as a potential secondary lesion in cancer survivors, especially those treated with immunosuppressive therapies.

Key Words: *Kaposi's Sarcoma, cancer, immunosuppressive therapies.*

Introduction

Kaposi's sarcoma is a low-grade angioproliferative neoplasm that most commonly appears in the context of immunosuppression.

There are four recognized clinical variants: classic, endemic (African), iatrogenic (post-transplant), and epidemic (AIDS-related).

Although Kaposi's sarcoma is more frequently seen in HIV-positive patients, sporadic cases can also occur in elderly individuals or immunosuppressed patients without HIV. This case presents a rare occurrence of Kaposi's sarcoma in an elderly woman with a history of breast cancer, highlighting the importance of a broad differential diagnosis when evaluating new skin lesions in cancer survivors.

Case Report

A 67-year-old woman with a history of breast cancer—previously treated with 4 cycles of EC and 12 cycles of paclitaxel as neoadjuvant chemotherapy, followed by total mastectomy with axillary dissection several years ago—presented with multiple small, purple nodules in the brachial and femoral regions. The lesions had developed progressively over the past two months, initially appearing in the brachial

region and later in the femoral area.
She had no systemic symptoms such as fever, weight loss, or night sweats.

The patient tested negative for HIV. Complete blood count, renal, and liver function tests were all within normal limits.
Given her prior history of breast cancer, cutaneous metastasis from breast carcinoma was initially suspected, and a biopsy was performed for definitive diagnosis.

Histopathology

Microscopic examination revealed a dermal proliferation of spindle cells forming irregular slit-like vascular spaces filled with erythrocytes.
Extravasated red blood cells, hemosiderin-laden macrophages, and a minimal inflammatory infiltrate were also observed.

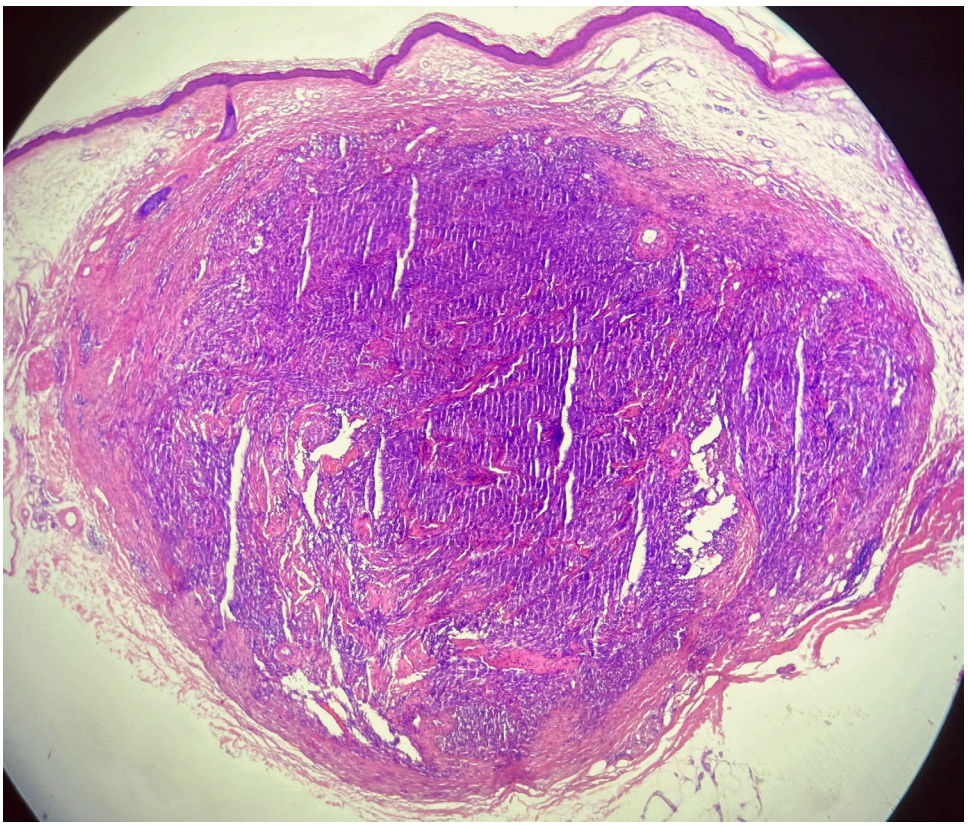

Figure.1 H&E: Dermal proliferation composed of spindle-shaped cells forming irregular slit-like vascular spaces filled with erythrocytes.

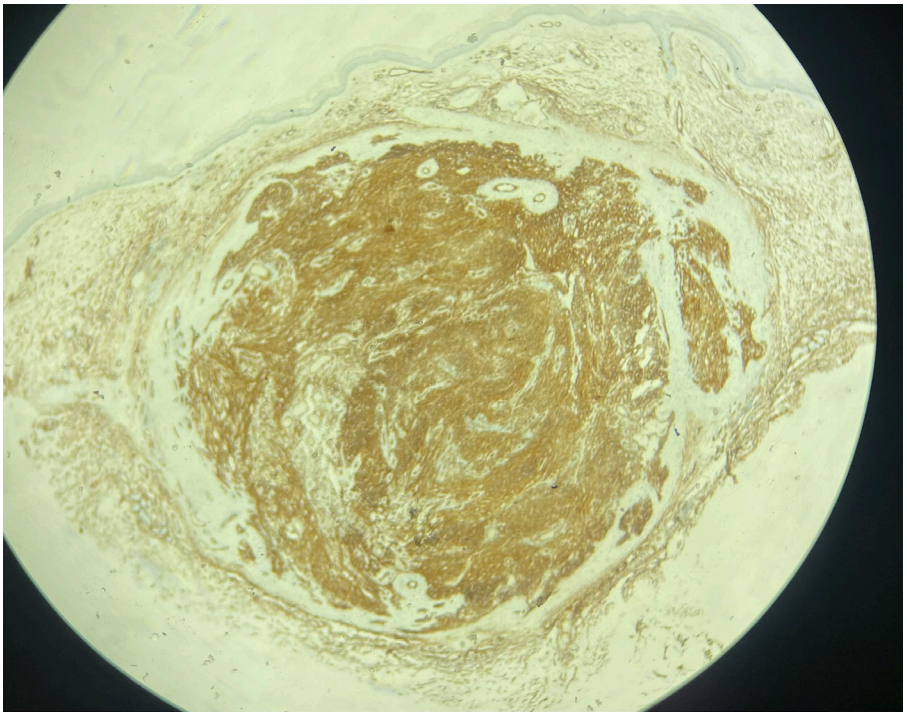

Figure 2: **HHV-8** was positive in the nuclei of the tumor cells, confirming the diagnosis of **Kaposi's sarcoma**.

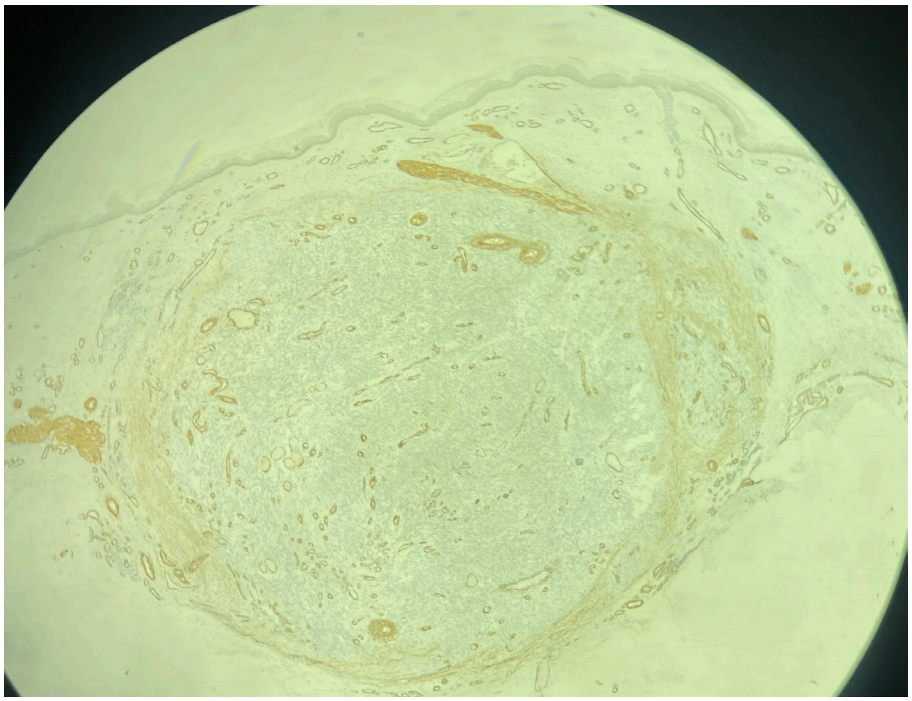

Figure.3 CD34 showed strong positivity, confirming endothelial differentiation.

Immunohistochemistry was negative for GATA3, SOX10, and Mammaglobin, while CD68 was focally positive. Ki-67 index was approximately 40%. SMA and Desmin were negative, ruling out metastatic disease or melanoma.
Strong CD34 positivity confirmed endothelial differentiation. Nuclear **HHV8 positivity** in tumor cells confirmed the diagnosis of **Kaposi's sarcoma**.

Discussion

Kaposi's sarcoma is closely associated with **HHV8 (Human Herpesvirus 8)** infection, with a pathogenesis that requires both the presence of the virus and immune dysregulation.
Although Kaposi's sarcoma is most frequently seen in patients with HIV/AIDS, it can also occur in elderly immunocompromised individuals (classic Kaposi's sarcoma) or in those with iatrogenic immunosuppression.

While breast cancer is not directly linked to Kaposi's sarcoma, the patient's history of chemotherapy and radiotherapy may have resulted in transient or chronic immune alteration, creating a favorable environment for HHV8-driven tumorigenesis.

Therefore, Kaposi's sarcoma should be considered in the differential diagnosis when evaluating new dermatologic lesions in cancer survivors, especially those with a history of immunosuppressive therapy.

Histopathology remains the cornerstone for the diagnosis of Kaposi's sarcoma, with HHV8 immunohistochemistry serving as a specific and sensitive diagnostic marker.
Treatment options vary depending on the extent of the disease—from local excision or radiotherapy to systemic therapy in more advanced cases.

Conclusion

This clinical case illustrates a **rare presentation of Kaposi's sarcoma** in a woman with a history of breast cancer.

It emphasizes the importance of maintaining a **broad differential diagnosis** for new skin lesions in cancer survivors, particularly in those who have undergone immunosuppressive therapies.

Early recognition, biopsy, and HHV8 immunohistochemical confirmation are essential for timely diagnosis and management of such cases.

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