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NABL

A late bloom after radiotherapy, From cure to crisis. Decoding rare complication after breast therapy.

A 65 year old female presented with recurrent lymphedema. She had past history of Modified radical mastectomy and CT, RT for left breast carcinoma (Invasive ductal carcinoma, NST) . Imaging showed nodular lesion beneath the breast scar. Wide excision of lesion was done and sent for Histopathological examination to r/o recurrence.
Gross examination revealed reddish discolouration over the skin surface. Serial sectioning showed brownish solid cystic irregular, friable tumor measuring 3.5x2.5x1.5cm in size. Areas of hemorrhage were also noted.

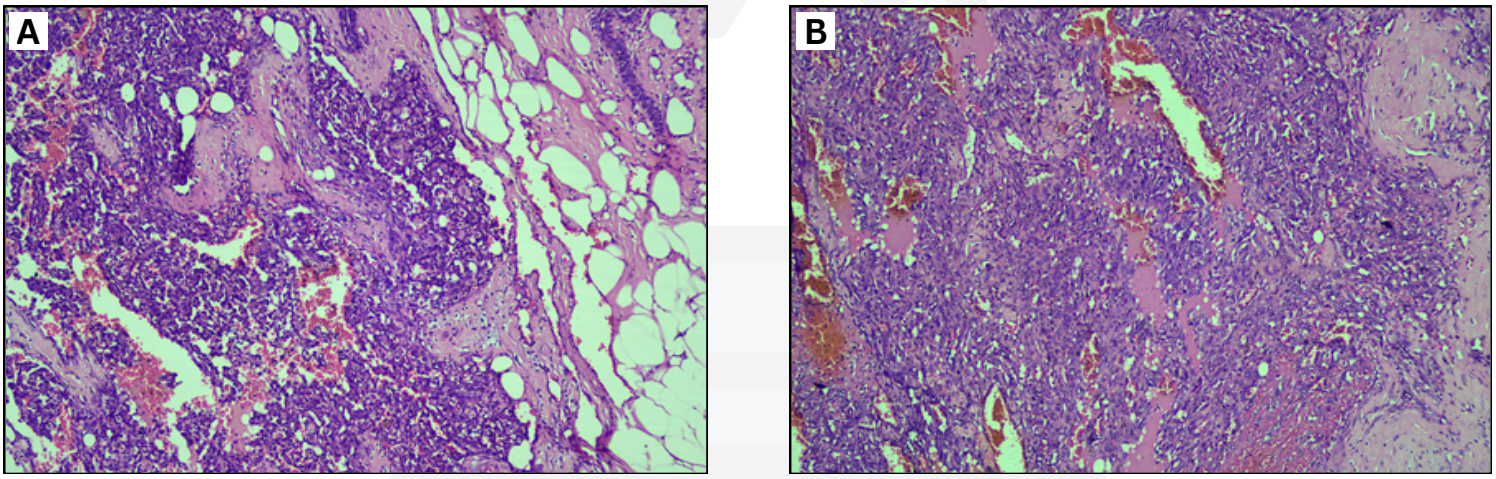

Fig1. (A) and (B) Tumor composed of infiltrating irregular vascular channels lined by atypical endothelial cells. Cells show epithelioid and spindled morphology. Areas of hemorrhage and necrosis seen. (H&E, 20x)

Microscopic examination showed features of an invasive malignant vasoformative tumor. IHC studies were performed to confirm the origin and for definite subtyping.

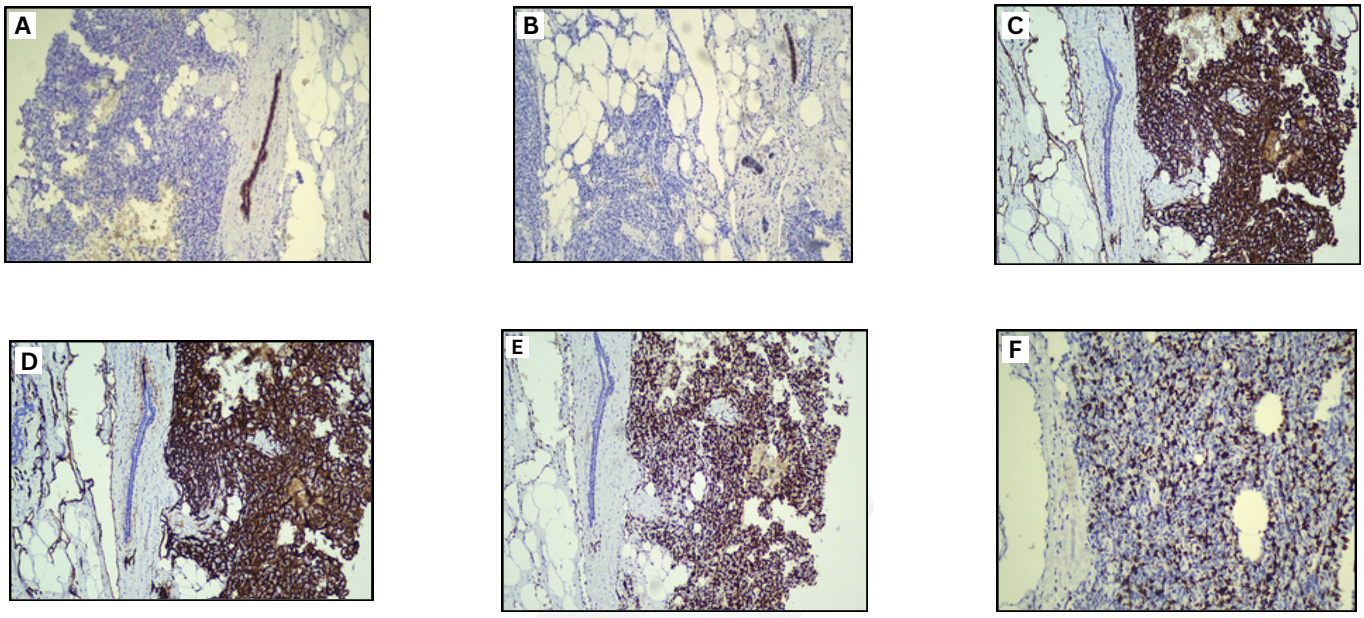

Fig2. Immunohistochemistry: (A) & (B) Pancytokeratin and EMAwere negative in the tumor cells (C) &(D) & (E) CD34, CD31 and ERG were positive indicating vascular origin of tumor (F) Mib-1 was high, around 70%. (IHC, 20x)

Final Diagnosis: Secondary Angiosarcoma breast

Key points:

- It is a malignant tumor originating from the endothelium of the blood vessels surrounding breast lobules or within lobular capillaries.
- Rare (0.05% of malignant breast tumors) but is the most common type of mammary sarcoma.
- Incidence of 0.03 - 0.14% after breast irradiation.
- Based on etiology, classified into primary breast angiosarcoma (PBA) and secondary breast angiosarcoma (SBA). SBA is associated with post radiation and also linked to chronic lymphedema following radical mastectomy for breast cancer (also known as Stewart-Treves syndrome).
- It is an aggressive tumor with poor prognosis.
- Complete surgical excision is the primary treatment modality.

Conclusion:

While residual invasive carcinoma remains the most commonly anticipated finding in breast cancer patients (IDC, NST) following radiotherapy, it is crucial to remain vigilant for the rare yet significant occurrence of secondary angiosarcoma. The presence of a tumor with prominent vascular morphology should raise this diagnostic consideration. Recognizing this entity is vital, as secondary angiosarcoma carries a distinct prognosis and demands an entirely different therapeutic approach.