



# RARE CASE OF ANGIOSARCOMA AFTER RADIATION THERAPY FOR BREAST CANCER

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## BACKGROUND

Breast angiosarcoma is a rare, highly aggressive malignancy, accounting for less than 0.05% of all breast cancers and about 8% of breast sarcomas. Radiation-associated angiosarcoma typically develops 5–10 years after breast-conserving therapy and radiotherapy, with an estimated incidence of 0.05–0.3%. The prognosis is poor, with 5-year survival rates between 10% and 40%.



Figure 1.



Figure 2.

## CASE PRESENTATION

We report a 68-year-old woman with a history of invasive ductal carcinoma of the left breast diagnosed 12 years ago. The tumor was Grade 3, ER-positive, PR-positive, HER2 1+, and Ki-67 29%. She underwent breast-conserving surgery followed by chemotherapy, radiotherapy, and endocrine therapy. Nine years later, she developed a 10 x 5 cm ulcerated mass, treated to a total mastectomy. Histopathology confirmed secondary angiosarcoma with negative margins. Three years later, she presented with a 2.9 cm nodular lesion at the surgical site, showing rapid growth, violet discoloration, and bleeding. Biopsy confirmed recurrent angiosarcoma, and she underwent wide local excision with 3 cm margins to achieve complete resection.

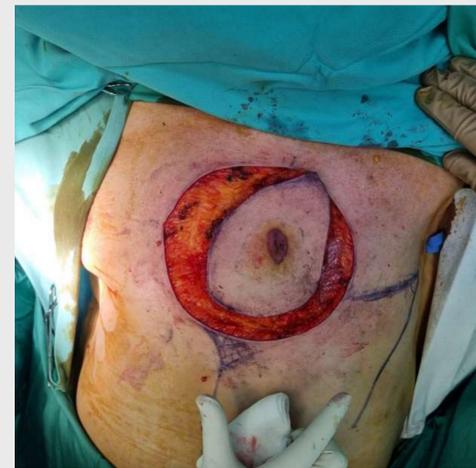


Figure 3.



Figure 4



Figure 5

## DISCUSSION

Secondary breast angiosarcoma typically occurs 10 years after radiotherapy. Its presentation often includes rapidly enlarging patches, nodules, or ulcerated skin, which can mimic benign conditions, delaying diagnosis. Despite complete resection, recurrence is common, and recurrent tumors often grow quickly, with signs such as discoloration and bleeding. Surgical excision with wide margins remains the primary treatment, whereas systemic therapy offers limited benefit. The prognosis remains poor, emphasizing the importance of radicality of excision and early diagnosis.

## CONCLUSIONS

Secondary breast angiosarcoma is a rare but aggressive complication of prior breast cancer treatment. Early recognition , prompt, wide-margin surgical excision and cover of the deficit are critical. Vigilant follow-up is essential for early detection of recurrences..



Figure 6.

## REFERENCES

- 1) Radiotherapy-associated angiosarcoma in the breast reconstructed by autologous free-flap and treated with electrochemotherapy  
[Romi Cencelj-Arnez](#)<sup>1,2</sup>, [Jerica Novak](#)<sup>1,2</sup>, [Andreja Klevisar Ivancic](#)<sup>3</sup>, [Masa Bosnjak](#)<sup>4</sup>, [Maja Cemazar](#)<sup>4,5</sup>, [Marko Snoj](#)<sup>1</sup>
- 2) Is there a role for adjuvant therapy in radiation-induced angiosarcoma of the breast? A case report and review of the literature  
[M Caterino](#)<sup>1</sup>, [M De Felice](#), [L Poliero](#), [G Mazzarella](#), [M Pirozzi](#), [S Facchini](#), [E Ciardiello](#), [M Fasano](#)
- 3) Clinical and Molecular Insights of Radiation-Induced Breast Sarcomas: Is There Hope on the Horizon for Effective Treatment of This Aggressive Disease?  
[Stefania Kokkali](#)<sup>1,2</sup>, [Jose Duran Moreno](#)<sup>3</sup>, [Jerzy Klijanienko](#)<sup>4</sup>, [Stamatios Theocharis](#)