

# Primary breast angiosarcoma: A clinicopathologic analysis of cases from the last 16 years

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### Abstract

This is all about the mammary angiosarcoma as a clinicopathologic analysis of cases from the last 16 years (Primary breast angiosarcoma).

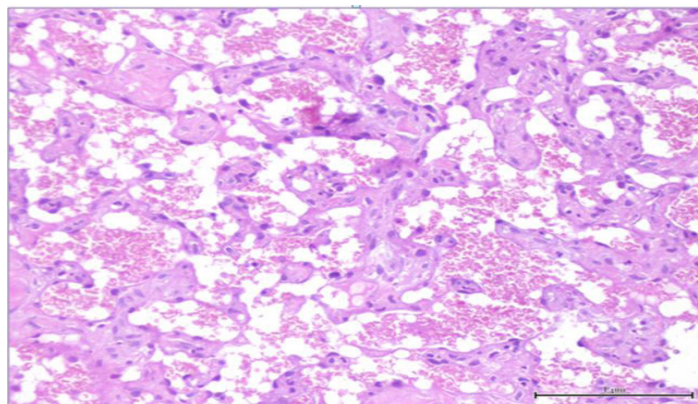
**Keywords:** Breast, Angiosarcoma, Treatment.

### Commentary

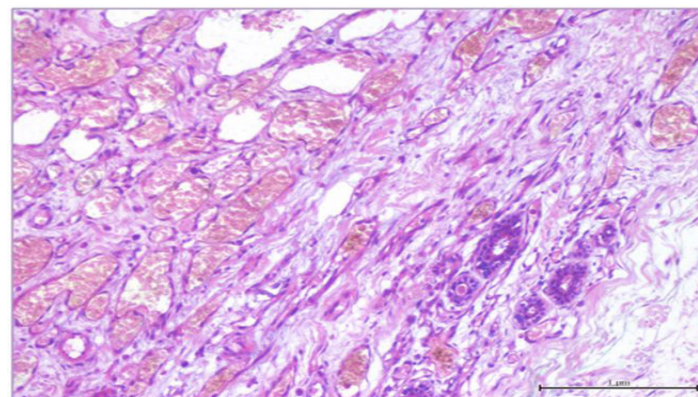
Mammary angiosarcoma (AS) is a rare entity, accounting for about 0.04% of all primary breast malignancies [1]. It occurs after mastectomy or radiotherapy. It rarely occurs de novo. We analyze the clinicopathological features and the treatment of primary (AS). We analyzed breast angiosarcoma cases diagnosed in the pathology department of Salah Azaiez Institute between 1995 and 2011. Five cases were identified as primary AS involving the breast. No patients had a history of mastectomy or breast irradiation. The ages ranged from 16 to 97 years. The physical examination revealed erythematous, bruised-appearing skin in one patient and skin thickening with palpable mass in 4 cases. The mean tumor size was 4.3 cm. Mammography and breast ultrasound revealed noncalcified masses in 2 cases and focal asymmetry in 3 others. Core needle biopsies have been used for diagnosis. Four patients underwent mastectomy without axillary dissection. Adjuvant radiotherapy was performed in one patient with microscopically positive margins. The 97 year old patient was considered candidate for supportive cares. Four patients had grade 1 AS: anastomosing vascular channels that surround ducts with lobular invasion (Figure1) (Figure2). These channels are lined by hyperchromatic endothelial cells with minimal tufting. One case had grade 2 AS: in addition to the features of low-grade angiosarcomas, histologic examination showed papillary formation, with or without solid or spindle cell foci and a significant mitotic activity. Loco-regional recurrences and distant metastases have not been reported in patients with grade 1 AS after a 36 months follow-up. The patient with grade 2 AS died of lung metastases.

In this study, all cases of breast angiosarcoma were primary. However, in the literature primary mammary angiosarcoma accounted for only 20% of all breast angiosarcoma [2]. Mastectomy was the mainstay treatment and the benefit from radiotherapy and chemo-

therapy remains to be demonstrated.



**Figure 1:** Anastomotic vascular structures, replacing breast tissue with erythrocytic extravasation and nuclear atypia.



**Figure 2:** Residual breast ducts caught in tumor proliferation.

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### Author contribution

Yosra Yahyaoui: Concepts, design, literature search

Raoudha Doghri: Guarantor, Concepts, design, literature search, manuscript preparation

Yosr Zenzri design, literature search, manuscript preparation

Ghada Sahraoui: definition of intellectual content, Design

Karima Mrad: Definition of intellectual content

Lamia Charfi: Concepts, Definition of intellectual content

### References

1. Hodgson NC, Bowen-Wells C, Moffat F, Franceschi D, Avisar E (2007) Angiosarcomas of the breast: a review of 70 cases.. Am J Clin Oncol.30:570–73.
2. Desbiens C, Hogue JC, Lévesque Y (2011) Primary breast angiosarcoma: avoiding a common trap. Case Rep Oncol Med.2011:517047

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