International

Original Research Paper

Medicine

PRIMARY ANGIOSARCOMA OF THE BREAST - PRESENTATION OF A CLINICAL CASE

Alexánder Antonio Jara Chávez*	MD. General Practitioner * Corresponding Author
Carolina Vanessa Saldaña Rodríguez	MD. General Practitioner
Wendy Vanessa Vaca Vega	MD. General Surgery Fellow Pontificia Universidad Catolica Del Ecuador
Bryan Rodrigo Vaca Morejón	Medical Intern of "Enrique Garces Hospital" Quito-Ecuador
Víctor Alfonso Terán Pérez	Medical resident at "Clinica Pasteur" Quito – Ecuador
Pamela Elizabeth Rosero Prado	Medical resident at "Hospital de Especialidades de las Fuerzas Armadas N.1" Quito – Ecuador
Pamela Johanna Picoita Solorzano	Medical Resident of 'Julius Doepfner Hospital''

ABSTRACT

Objectives: Describe the frequency, possible causes, clinical, diagnosis, prognosis, complications and possible treatment of this disease.

Method: A retrospective study was carried out, monitoring the patient from the detection of the lesion in the breast, carrying out diagnostic tests until its outcome.

Results: A 42-year-old female patient with a history of fibroadenoma exeresis of both mammary glands; after approximately 5 years with a new non-painful lesion, approximately 4 centimeters in diameter in the left breast, detected in manual self-examination. Negative exams (breast ultrasound, core biopsy) for malignancy. Due to an increase in the lesion involving the skin and ulcerating it, a Wide Left Total Mastectomy was performed, histopathological confirming: Primary Angiosarcoma of the Breast

Metastatic lesions were presented at the surgical site and lungs level; patient dies weeks later.

Conclusion: Primary angiosarcoma of the breast is an infrequent and aggressive neoplasm with an unknown etiology. Although clinical data and imaging tests may guide the diagnosis, histological and immunohistochemical study will be necessary to determine the diagnosis. Because it is a tremendously aggressive disease, the prognosis in almost all patients is very poor; therefore, early diagnosis is emphasized.

Mastectomy is the treatment of choice accompanied or not by adjuvant chemotherapy, the benefits of which have not yet been defined.

KEYWORDS: Angiosarcoma, mastectomy.

INTRODUCTION

Primary angiosarcoma is a relatively rare malignant neoplasm at the breast level constituting less than 0.05% of the primary tumors of the breast. It is a very aggressive neoplasm of unknown origin. There is a strong relationship with radiation therapy to the chest wall.

Secondary angiosarcoma of the breast appears in older women, either after radiation therapy for breast cancer or due to chronic lymphedema.

Imaging studies and clinical criteria can lead to a suspected diagnosis; however, the histopathological study determines the definitive diagnosis of the lesion.

We have considered the presentation of our case interesting due to the absence of a history of radiotherapy prior to the appearance of the lesion as well as its atypical clinical debut.

METHODOLOGY

A retrospective study was carried out, monitoring the patient

from the detection of the lesion in the breast, carrying out diagnostic tests until its outcome.

The information and images obtained belong to the medical personnel who were in charge of the case.

CLINICAL CASE PRESENTATION

A 42-year-old female patient with a history of exeresis of bilateral fibroadenoma-type breast lesions, without requiring adjuvant treatment. He did not go to scheduled controls for follow-up. Approximately after 5 years she came again referring to palpating herself in breast self-examination, a non-painful lesion in the left breast of approximately 4 centimeters in diameter, which, as a patient, she did not feel 15 days before; exams are requested (to highlight):

- Ultrasonography of the breast: In the left breast, a regular lesion of $4\times3\times3.5$ centimeters in diameter located in the union of the external quadrants.
- Core biopsy: Inconclusive, compatible cells are observed for fibroadenoma, associated with various calcifications.

While examinations were carried out, an increase in the size of the mammary gland and an ulcerative skin lesion in the orifice of the core biopsy were evident, which increased in size accompanied by purulent discharge.

A case is presented and discussed at STAFF for breast tumors deciding: despite the fact that studies are negative for malignancy, the aggressive behavior and rapid progression of the lesion warrants surgical treatment, exceeding for a confirmatory study; A Left Wide Total Mastectomy was performed, due to the diameter of the lesion and lack of adequate tissue for closure, an open surgical wound was left with the supervision of Plastic Surgery for possible flap according to the evolution of the patient.

Histopathological result: Primary Angiosarcoma of the Breast.

Surgical wound was maintained in daily healings, the same one that presented dark brown lesions that later drained and grew in diameter; At the same time, in thorax tomography, lung metastatic lesions were observed that caused pleural effusions with liquid cytology compatible with metastasis.

Patient received terminal palliative care until the time of his death.



Photo 1: Left breast Angiosarcoma



Photo 2: Trans surgical Total Mastectomy Expanded



Photo3: Tumor Growth in Surgical Site



Photo 4: Angiosarcoma in Surgical Site

DISCUSSION

Angiosarcoma is a malignant neoplasm derived from the vascular endothelium and can occur virtually anywhere in the body, rapidly progressive and with a poor prognosis.

Radiation history and lymphedema are present in secondary angiosarcoma, but the origin of the primary remains unknown.

There are significant differences in the mean age of onset. Primary tumors occur in younger patients (20-40 years), are more aggressive, and have a median survival of 19-30 months. In secondary schools, the mean age is later, being 60 years (30-70 years).

The diagnosis of a breast sarcoma requires histopathological analysis. Fine needle puncture (FNA) samples are not recommended because it does not allow proper analysis. Core biopsy can be used on condition that the recovered specimen is sufficient.

The debut of these tumors are painless palpable masses, commonly a significant portion of the breast is compromised, associating edema and discoloration at the time of diagnosis.

Histologically, it presents macroscopically as a spongy-appearing tumor with caverns, hemorrhagic areas, with a diameter of growth infiltrating the adjacent parenchyma as well as adipose tissue.

Microscopically they are classified into three grades

- Low grade or well differentiated: vascular channels with anastomosis, endothelial cells with little atypia infiltrating the stromal.
- Intermediate degree: mitosis is frequent in small papillae found in the vascular lumens, areas of endothelial proliferation, foci of cellular atypia.
- High degree or poorly differentiated: solid, hemorrhagic and necrotic areas are common; Intravascular papillary proliferations.

There is no standard treatment defined, surgery is recommended (total mastectomy). Regarding chemotherapy, the data is limited.

The prognosis is very poor. Metastases occur in 50-60% of patients, spread very frequently through the blood and lymphatic vessels, and metastasize primarily to the lymph nodes, pleural chest wall, and lungs.

CONCLUSION

Primary angiosarcoma of the breast is a rare and very aggressive neoplasm. There is no known etiology, but studies have been reported that there is a history of previous radiation therapy.

Although it is true that clinical data and imaging tests can guide the diagnosis, the report of the histopathological and immunohistochemical study will always be necessary to confirm it. Because it is a tremendously aggressive disease (spread, spread, systemic compromise), the prognosis in almost all patients is very poor.

There is no defined standard treatment; but the Extended Total Mastectomy is the one of choice.

The benefits of chemotherapy are not yet defined.

REFERENCES

- Cea García J, Albalat Fernández R, Carrión Jiménez I, Pabón Carrasco S. Angiosarcoma primario de mama con metástasis en ovario y axila: un patrón inusual de enfermedad metastásica. idic [Internet] 2016 [citado 2018/10/16]; 5(3)
- RAD-PAT. Angiosarcoma Mamario. Boletín mensual de correlación radiológica-patológica del INCMNSZ. [Internet] Junio 2017 [citado 2018/10/16]; (10).
- 3. Monroy K, Fernández L, Sua LF. Angiosarcoma de Mama (ASM) Metastásico a Pulmón con Respuesta Favorable a Tratamiento en un Hospital de Referencia en América Latina: Reporte de Caso. [Internet] 2017. [citado 2018/10/16]. Cayuela M, Pahisa J, Ferrer B. Angiosarcoma de mama. Revisión a propósito de un caso. Rev Senología y Patol Mam. [Internet] 2000 [citado 2018/10/16]; 13(1): [aprox. 3p.].
- Torres Gómez FJ, Ibáñez Martínez J, Torres Olivera FJ. Angiosarcoma de mama. A propósito de un caso. Oncología. [Internet] 2006 [citado 2018/10/16]; 29(2): [aprox. 4p.].
- Kondis-Pafitis A, Psyhogios J, Spanidou-Carvouni H. Clinicopathological study of vascular tumors of the breast: a series of ten patients with long follow up. Eur J Gynaecol Oncol 2004; 25(3):324-26.
- WynnGR, Bentley PG, Liebman R, Fletcher CD. Mammary parenchymal angiosarcoma after breast conserving treatment for invasive high grade ductal carcinoma. Breast J 2004 Nov-Dec; 10(6):558-59.
- Billings SD, McKenney JK, Folpe AL, Hardacre MC, Weiss SW. Cutaneous angiosarcoma following breast-conserving surgery and radiation: an analysis of 2-7 cases. Am J Surg Pathol 2004 Jun; 28(6):781-8.
- Parker RG, Barsky SH, Bennion R. Angiosarcoma developing in a breast after conservation treatment for breast cancer. Am J Clin Oncol 2003 Oct; 26(5):486-8.
- Parker RG, Barsky SH, Bennion R. Angiosarcoma developing in a breast after conservation treatment for breast cancer. Am J Clin Oncol 2003 Oct; 26(5):486-8.