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Gastric Metastases 14 Years After the Treatment of Breast Cancer

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Authors' contributions

This work was carried out in collaboration among all authors. Authors FE and MK wrote the first draft of the manuscript. Author MB performed the translation. Author LG managed the literature searches and submission procedure. Author JD corrected the manuscript. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Aims: Gastric metastases are a rare event in the natural history of breast cancer.
Report of the Case: We report the case of a gastric metastasis occurred 14 years after initial treatment for breast carcinoma.
Discussion: Gastric metastases don't exceed 0,3% of all metastases. Diagnosis is based on pathological examination of biopsies or surgical specimens. It is difficult to prove their primitive or secondary origin. Treatment consists on chemotherapy and or hormonal therapy.
Conclusion: The prognosis is similar to those with metastatic disease.

Keywords: Breast cancer; gastric; metastases; prognostic.

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1. INTRODUCTION

Metastases are seen in 50% of women followed for breast cancer. The skeleton, lungs and liver are the predilection sites of metastasis. However, gastric metastases from mammary carcinoma represent a rare entity with an estimated incidence of 0.3% [1-4]. A quiet digestive symptomatology explains the diagnosis at advanced stages. The most common aspect found on endoscopy is a plastic linitis. The most common differential diagnosis is a primary gastric cancer.

Immunohistochemistry has an important place to support the diagnosis. The treatment is systemic. We report a case of gastric metastasis from breast carcinoma after 14 years of complete remission.

2. PRESENTATION OF CASE

A 43-year-old woman consulted in February 1993 for a nodule in the left breast initially classified as T3N1M0. The patient had a mastectomy with ipsilateral axillary lymph node dissection. In the pathological study, it was an invasive ductal carcinoma of 5 cm long axis of grade 2 according to SBR (Scarff Bloom and Richardson), with metastases in 3 lymph nodes out of 6 lymph nodes removed without capsular invasion. There was no Paget's disease of the nipple or vascular invasion. The immunohistochemical study of hormone receptors and HER-2 was not routine.

The adjuvant treatment had included chemotherapy and locoregional radiotherapy. Anti-estrogen hormone therapy was prescribed for 5 years.

In 2003, the patient had consulted for spinal pain with signs of spinal cord compression. The results showed bone metastases in the 3rd lumbar vertebra with immunohistochemical studies of estrogen receptor expression evaluated at 90% and progesterone receptor expression at 10%. Lumbar irradiation at a dose of 30 Gy was indicated and hormone therapy with aromatase inhibitors was initiated as well as treatment with bisphosphonates.

After 6 years of complete remission, in March 2009, the patient had an eso-gastro-duodenal fibroscopy for epigastralgia which had progressed for several months. Endoscopy revealed a sub-cardial ulceration. Histological study of the biopsy samples had shown a proliferation of small clusters and cell cords and more rarely pseudo-glandular structures. The tumor cells were of medium size with moderate cytonuclear atypia and some figures of mitosis. The stroma was scarce in places of the endocrine type.

In immunohistochemical study, tumor cells were positive for estrogen receptors and negative for CD56, chromogranin and synaptophysin.

The diagnosis was gastric metastasis of an invasive ductal carcinoma. The extension workup was also negative and the patient underwent taxane chemotherapy. The clinical and biological response was transient with the appearance of hepatic metastases. Anthracycline-based chemotherapy was then indicated but without objective response.

3. DISCUSSION

The incidence of gastric metastases secondary to primary breast cancer does not exceed 0.3% [5-8], however it reaches 18% in autopsy series [8]. The physiopathology of this type of extension remains poorly understood [1]. This type of invasion may be preceded by other secondary localizations, particularly in the bone and liver, or more rarely, it may be the first metastatic site after complete remission [6-7]. The timeout of these metastatic locations is often several years after diagnosis [6,8]. The clinical symptoms are often not alarming, consisting of dyspepsia, anorexia, epigastralgia often attributed to benign gastropathy or related to side effects of treatments delaying diagnosis. Endoscopy guides the diagnosis, often with the appearance of plastic linitis [4]. The diagnostic confirmation is anatomopathological examination. Histological study alone is not sufficient to differentiate between a primary gastric and a secondary location.

Immunohistochemistry is of great help. The positivity of tumor cells for CA15-3 and for estrogen and progesterone receptors points to a breast origin, nevertheless the positivity of these two hormone receptors is reported in 12 to 32% of primary stomach cancers according to the series [5]. According to other studies, in the absence of expression of hormone receptors, the positivity of the GCDFP marker has been correlated with a breast origin with a specificity of up to 100% [8-10].

Although often palliative, the treatment is systemic combining chemotherapy and / or hormone therapy in the event of hormone receptor positivity. The choice of the type of chemotherapy depends on the previous treatment received. Locoregional treatment has no place [8].

Median survival does not exceed 28 months according to the best series [7,6].

4. CONCLUSION

Primary breast gastric metastases are rare and often late occurring after several years. The differential diagnosis arises particularly with primary gastric adenocarcinomas. Immunohistochemistry has its place to support this diagnosis. The treatment, although palliative, is often systemic.

CONSENT

All authors declare that 'written informed consent was obtained from the patient (or other approved parties) for publication of this case report'.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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