Loss of Eyesight as a Form of Presenting Breast Cancer Recurrence

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Abstract

We present a case of a patient whose first manifestation of breast carcinoma recurrence was the loss of eyesight, due to a choroidal unilateral metastasis 10 years after mastectomy, where it was seem a clear response to tamoxifen therapy.

Choroidal metastases are rare in the oncology practice being considered exceptional whilst presenting a recurrence of breast carcinoma.

On the other hand radiotherapy is the usual palliative therapy proposed and there are no cases described in medical literature responses to tamoxifen as the one documented in this case.

Key words: breast cancer, choroidal metastases, tamoxifen, retinal detachment, loss of eyesight.

Introduction

Choroidal metastases are rare in clinical practice and may be asymptomatic or cause loss of eyesight by a secondary retina detachment or by macular location[1]. Breast carcinoma is the primary tumor more often involved[2]. About 2-6% of patients with breast carcinoma develop choroidal metastases and these emerge usually in the advanced stages of the disease with evidence of multiple organ involvement[3].

It is described the case of a patient in a first manifestation of a breast cancer recurrence was the loss of eyesight due to a choroidal unilateral metastasis 10 years after mastectomy where it was observed a clear response to therapy with tamoxifen.

Clinical case

58 years old patient, female, born and resident in Covilhã, a teacher, with a breast adenocarcinoma diagnosis established in 1982 having been subject to left mastectomy with axillary ganglionar emptying without any adjuvant therapy. In 1986 liver tests changes emerged, namely glutamic-oxalacetyc transaminases (GOT) 158U/L and glutamic-piruvic transaminase (GPT) 257 U/L, being normal the abdominal ultrasound. These changes remained until August 1990, time in which the patient was referred to Medicine II appointment due to neurology changes suggesting porto-systemic encephalopathy. Laboratorial evaluation at the time has shown GOT-126 U/L, GPT – 108 U/L, gamma glutamil transpeptidase 69 U/L, alkaline phosphatase 286 U/L, total bilirubin 2,8mg %, albumin 3,3%, gamma globulin 5,5%, prothrombin time 22,1/13,8 sec, with negative serum markers for the hepatitis B virus and the C virus, negative anti-nuclear antibodies and anti-mitochondrial, and positive anti-smooth muscle antibodies and stomach parietal anti-cell. The hepatic biopsy performed has revealed hepatic cirrhosis with signs of active chronic hepatitis. The condition was construed as hepatic cirrhosis of a probable auto-immune etiology having been performed a corticotherapy with partial response.

In September 1992 she returned to Santa Maria Hospital Emergency Service due to a quickly progressive loss of eyesight on the right eye. Fundoscopy has shown a secondary retina detachment with a lesion taking space in the lower quadrants of the right eye (Fig 1A) with a normal left eye on observation. Ocular ultrasound has confirmed existing a neoformation , making a prolapsus in the vitreum cavity with a secondary retina detachment (Fig 1 B) and the orbital CAT scan observing a marked thickening of the wider base of the lower and anterior segment of the right ocular globe sclera (Fig 2A). It was made the diagnosis of a likely choroidal metastasis and it was made an investigation to determine the primitive tumor. Mammography did not show changes suggesting malignant lesions. Thorax radiography has shown hypotransparence in the lower third of the right hemithorax, being identified on the thorax CAT scan 2 node lesions in the lower right lobe. In the abdominal ultrasound the liver was In the abdominal ultrasound

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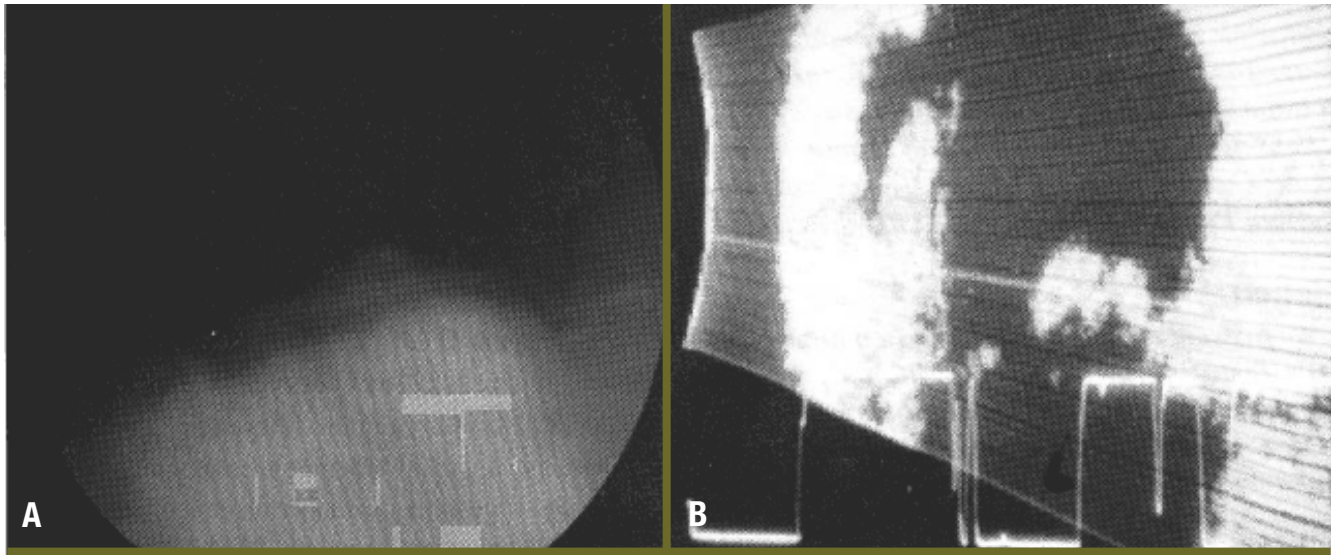


Fundoscopy (A) and ocular ultrasound (B) revealing lesion taking space in the lower quadrants of the right eye with a secondary retina detachment.

FIG. 1

the liver was diffusely heterogenous and hyperechogenic and there was a homogenous splenomegaly having also being made an abdominal CAT scan with lipiodol endovenous injection that has shown no hepatic lesions. The carcinoembrionary antigen dosage was 8.2 ng/mL, MCA of 34.9 I.U and alpha-phetoprotein of 298 I.U. It must be highlighted that during the previous six months it had been recorded a marked increase of alpha-phetoprotein (700 I.U/mL) coinciding with stages of laboratorial activity of active chronic hepatitis[4].

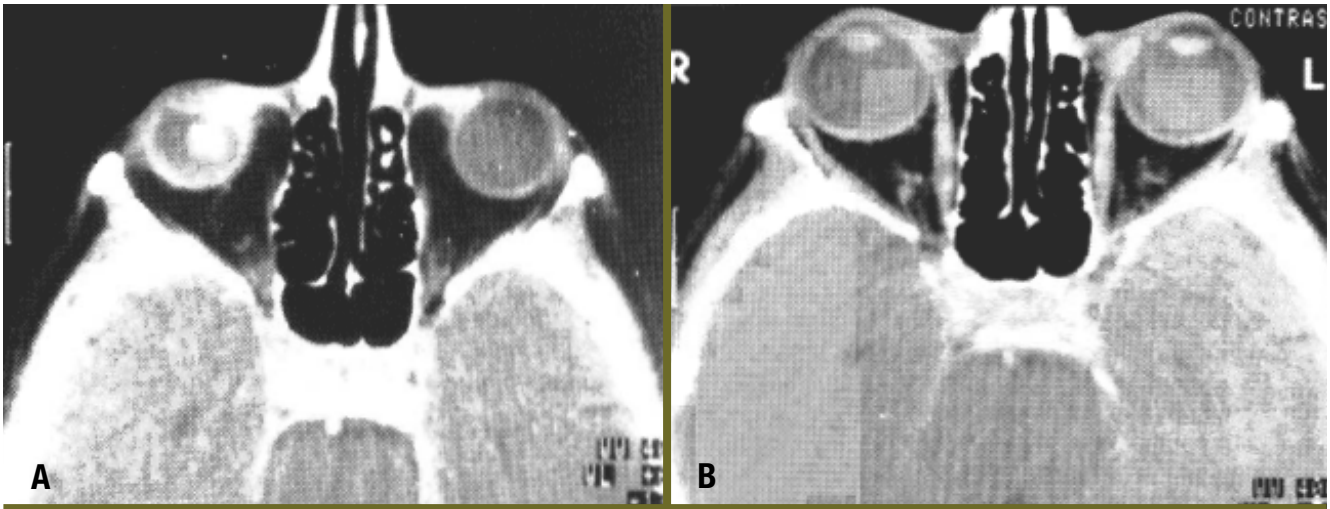
With the purpose of reaching a histological diagnostic, it was formulated the possibility of a choroidal tumor biopsy, but facing the need of a general anesthesia and marked hepatic failure, the option was to perform transbronchial biopsies of pulmonary nodes by bronchofibroscopy that however did not intersect a tumor. It was established the likely diagnosis of breast cancer metastases in the choroid and in the lung have been started a tamoxifen therapy (20mg/day) and scheduled radiotherapy addressed to the ocular lesion.

There was a progressive reduction in the ocular lesion, whether in the fundoscopy whether in the ocular ultrasound with a visual deficit stabilization, recorded 6 weeks after disappearing the ocular lesions in the orbital CAT scan (Figure 2B) reason why it was not started radiotherapy. Regarding the pulmonary metastasis the thoracic CAT scan has shown the disappearance of a node and a reduction on the other size.

To conclude, it was documented a clear response to therapy with tamoxifen consistent with the diagnosis of breast carcinoma metastasis being verified however a subsequent deterioration of hepatic failure with jaundice and porto-systemic encephalopathy and the patient died 4 months later for spontaneous bacterial peritonitis.

Discussion

The described case shows a rare form of presentation of a breast cancer recurrence namely loss of eyesight by choroidal metastasis. In oncology practice, ocular manifestations are rare, being considered exceptional its appearance as recurrence first manifestation[3] in spite of being documented, mainly in necropsy studies, the occurrence of choroidal metastases in advanced stages of the disease with metastases in multiple organs. In the current case, the patient had a diagnosis of breast cancer 10 years before and, although the period free of the disease had been lengthy, are well recognized in this neoplasm the later recurrence. In this sense, this case shows once again that in a woman with mastectomy, even for a long time, it should always be considered the hypothesis of recurrence before any clinic condition where the



Orbital CAT scan showing a marked thickening of a wide basis in the lower and anterior sclera of the right ocular globe (A) and lesion disappearance after tamoxifen therapy (B).

FIG. 2

etiology is questioned [5,6]. On the other hand, breast carcinoma is the primary tumor more often involved in the international serial[2] of choroidal metastases.

The therapy usually recommended for breast carcinoma choroidal metastases is radiotherapy[7]. In this case it was scheduled, but it was verified a marked response to therapy with tamoxifen whether from pulmonary metastasis or from choroidal what led not to start ocular radiotherapy. It is important to highlight this therapeutic response, is perfectly consistent with the diagnosis of breast cancer metastasis, once that it has not been detected in the literature any case of choroidal metastasis remission with hormonotherapy[7].

In spite of the metastasis partial remission of the choroid and lung metastases, would however to be verified a deterioration on the hepatic failure construed as an evolution within the natural history of autoimmune active chronic hepatitis with hepatic cirrhosis diagnosed several years before, having the patient died of a chronic hepatic disorder complication (spontaneous bacterial peritonitis) in a stage in which the neoplastic condition was stable. In spite of being recently described extremely rare cases of hepatitis and hepatic failure in patients subjects to therapy with tamoxifen[8,9] the definitive association between tamoxifen and hepatic lesion is controversial in literature [10], and it is not necessary in the present case to formulate a drugs etiology to justify the deterioration of the hepatic function due to the previous severity of a chronic hepatic disease.

To conclude, this case shows a rare form of presentation of breast carcinoma recurrence after 10 years of clinic remission and a good response to tamoxifen therapy with a choroidal metastasis, an aspect usually not acknowledged in literature. ■

References

1. Mewis L, Young S E. Breast carcinoma metastatic to choroid. Analysis of 67 patients. Ophtalmology 1982; 89: 147-151

2. Freedman M L, Folk J C. Metastatic tumors to the eye and orbit. Patient survival and clinical characteristics. Arch-Ophtalmology 1987; 105(9): 1215-1219

3. Rose M A, Feldman E. L. Specific sites of metastatic diseases and emergencies: Choroidal metastases from breast Cancer. In: Harris JR, Hellman S., Henderson IC, Kinne DW (Eeds). Breast Diseases. Philadelphia. JB Lippincott 1987; 497-505

4. Koda M, Hori T, Maeda N, Kato S, Murawaki Y, Horie Y et al. Lectin-reactive patterns of markedly elevated serum alphafetoprotein in patients with chronic active hepatitis. Am. J. Gastroenterology 1991; 86: 861-865

5. Hibbard A D, Harwood L J, Wells J E. Lomg term prognosis of women with breast cancer in New Zealand. Study of survival to 30 years. Brit. Med. J. 1983; 286: 1777-1779

6. Rugist L. E. Wallgrew A. Long-term survival of 458 young breast cancer patients. Cancer, 1981; 55: 658-665.

7. Henderson I C, Harris J R, Kinne D W, Hellman S. Cancer of the breast. In: DeVita V T, Hellman S, Rosenberg S A, ed. Cancer: principles and practice of oncology. Philadelphia J. B. Lippincott 1989; 1197-1258.

8. FDA. Adverse Reactions Reports 1987 – 1990.

9. Ching C K, Smith P G, Long R G. Tamoxifen associated hepatocelular damage and agranulocytosis. Lancet 1992; 339: 940.

10. Stricker B H Ch, Biour M and Wilson J H P. Sex hormone antagonists and miscellaneous agents. In Stricker B. H. CH. Ed Drug induced hepatic injury. Amsterdam. Elsevier 1992; 475-478.