

Decreased visual acuity in a patient treated for breast cancer: what do you think?

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Abstract: We report the case of a 35 years old woman operated for infiltrating ductal carcinoma by mastectomy and axillary lymph node curage associated with radio-chemotherapy, consulted for a progressive decrease of visual acuity in the right eye. Ophthalmologic examination and investigations concluded to the diagnosis of choroidal metastasis. In patients with breast cancer, the occurrence of visual disorders should suggest the possibility of choroidal metastases.

Keywords: Choroidal metastasis, breast cancer, chemotherapy

Observation:

A 35-year-old female patient, mother of two, operated for infiltrating ductal carcinoma by mastectomy and axillary lymph node curage associated with radio-chemotherapy and without gynecological follow-up for several years, who consulted for a sudden decrease in visual acuity of the right eye to 1/10. The ophthalmological examination showed a large peri-papillary lesion extending into the nasal field of the papilla and complicated by a serous retinal detachment extending into the macular area. B-mode ultrasonography showed an isoechoic tissue tumor process without choroidal excavation. Retinal fluorescein angiography showed inhomogeneous hyperfluorescence with late pinpoints. On indocyanine green angiography, there was hypofluorescence in the early period and hyperfluorescence in the late period, strongly suggesting the diagnosis of choroidal metastasis. (Figures 1,2,3)

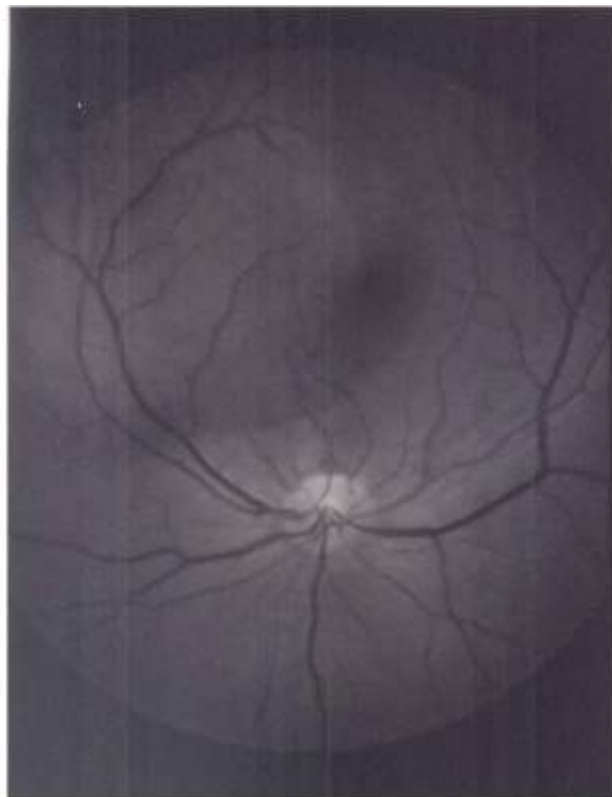


Figure 01: Macular tumor associated with a serous retinal detachment

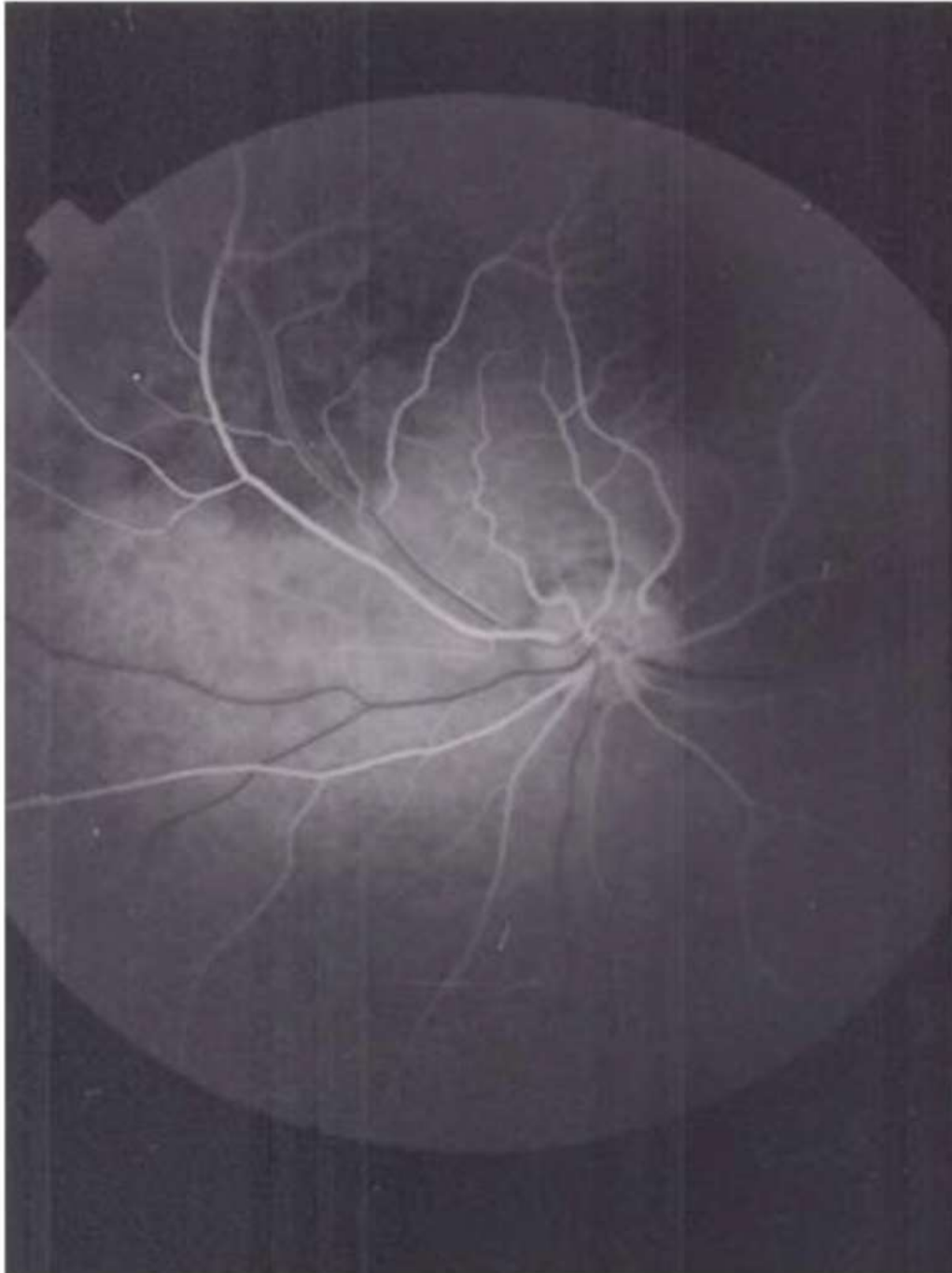


Figure 02: Hypofluorescence|at early time

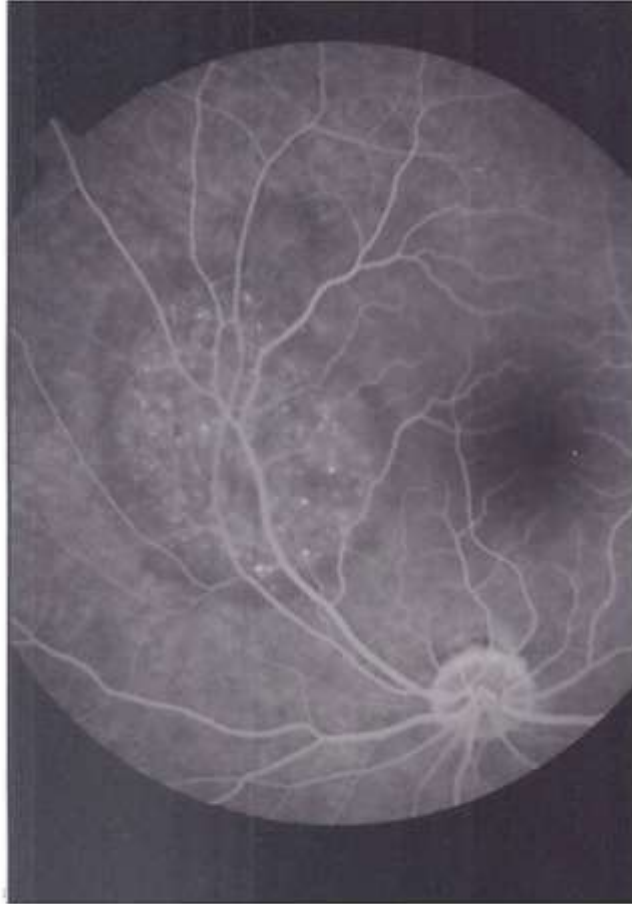


Figure 3: Inhomogeneous fluorescence of the tumor which is associated with pinhead hypofluorescence.

Comment:

Choroidal metastasis was evoked and the patient was referred to the department in search of the primary tumor.

The general condition was preserved. Clinically, there was a right temporo-inferior visual field deficit and phosphenes.

The clinical examination revealed a 1cm nodule at the level of the mastectomy scar. Ultrasound showed a hypoechoic lesion of irregular shape, with micro lobulated contours, attenuating the echoes posteriorly, measuring 10/07mm.

The thoracic-abdomino-pelvic CT scan showed multiple hepatic nodules. Bone scintigraphy revealed extensive bone metastases. (Figure 4)

Ca125 was elevated to 100 IU/mL and a biopsy of the nodule identified an infiltrating ductal carcinoma grade III SBR with positive hormone receptors and HER hyperexpression. The patient was treated with eight courses of Docetaxel-trastuzumab followed by letrozole. She is currently alive with good clinical evolution after 28 months of follow-up.

Discusion :

Choroidal metastases are rare ocular malignancies; their frequency is in the range of 10% to 38%. [1] Breast cancer is the leading cause of choroidal metastases occurring to women. Most often, these lesions appear in the terminal stage of neoplasms and coexist with metastases from other organs in 60% to 91% of cases. [2]

The primary cancers most frequently responsible for this type of metastasis are breast cancer and lung cancer in women. [3,4] Choroidal metastases revealing a primary cancer are rare; they are often part of a generalized neoplasia. They have a poor prognosis in terms of function and life expectancy; the search for the primary site must be made as soon as possible in order to allow for therapeutic management, dominated by ocular radiotherapy to limit extension and chemotherapy to extend the survival time of the patients. The short-term ocular and visual prognosis is usually good after a therapeutic approach individualized to each case. [5] The median survival of patients after the diagnosis of choroidal metastases is usually less than six months. [1,3,5]

In a series of 520 eyes with uveal metastases, a choroidal location is documented in 88%. [6] The primary cancers most frequently responsible for this type of metastasis are breast or lung tumors in women. A systemic workup reveals a primary tumor in 50% of them, usually breast (7%) or lung (35%). [6] However, no primary cancer is identified in the remaining 50%. Other metastatic lesions are found in 70% of patients. [6]

In the series of Shield et al [6], at the time of diagnosis of uveal metastasis, approximately one third (142 of 420 patients, i.e. 34%) of patients had no history of neoplasia. A study of 264 patients with uveal metastases of breast cancer, of which 85% (were choroidal metastases), showed that uveal metastasis was indicative of breast neoplasia in only 3% of cases (seven patients) [7]. In addition, in this series, when uveal metastasis was present, the frequency of brain metastases increased from 6% to 28%. [7]

Conclusion:

Retinal metastases requires a heavy management necessitating a multidisciplinary collaboration between ophthalmologists and gynecologists and oncologists.

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