

Choroidal Metastases from Breast Cancer

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Abstract

A 65-year-old woman presented with a one-month history of impaired vision in the right eye. She had undergone a surgery for breast cancer 8 years prior to the vision loss. On examination, her best spectacle-corrected visual acuity was 20/40 Snellen in the right eye and 20/20 in the left eye. Fundus photograph displayed a large choroidal tumor at inferior area. The vision loss was due to the tumor, which involved the macula. A CT scan revealed metastatic choroidal tumors in her both eyes and the other metastasis was not detected. She decided to receive a hormone therapy and a radiation therapy. Breast cancers often spread to choroid as well as brain, as choroid is filled with blood vessels.

Keywords: Choroidal metastasis; Breast cancer

Case Report

A 65-year-old woman presented with a one-month history of impaired vision in the right eye. She had undergone a surgery for breast cancer 8 years prior to the vision loss. The breast cancer was an invasive ductal carcinoma and had not spread to the other organs. On examination, her best spectacle-corrected visual acuity (BSCVA) was 20/40 Snellen in the right eye and 20/20 in the left eye. Fundus photograph of the right eye displayed a large choroidal tumor, which involved the macula (Figure 1).

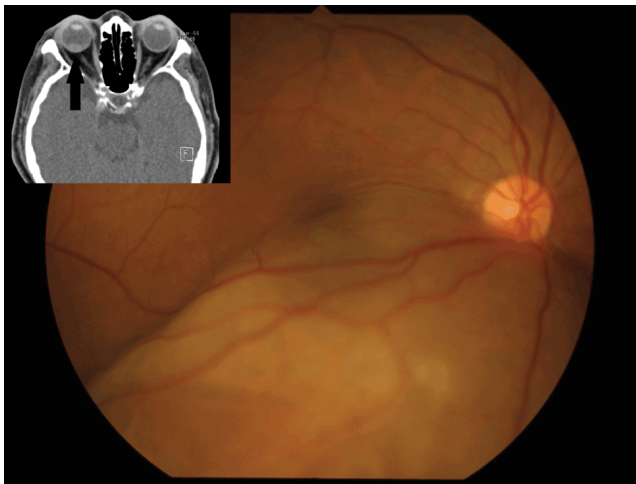


Figure 1: Fundus photograph of the right eye at initial presentation displays a large dome-shaped choroidal tumor at inferior area which extends to involve the macula. Computerized tomography reveals a dome-shaped choroidal tumor (arrow) with thickness of 7.3 mm and width of 12.6 mm (shown as an inset).

Fundus photograph of the left eye showed 2 choroidal tumors, which separated from the macula (Figure 2).

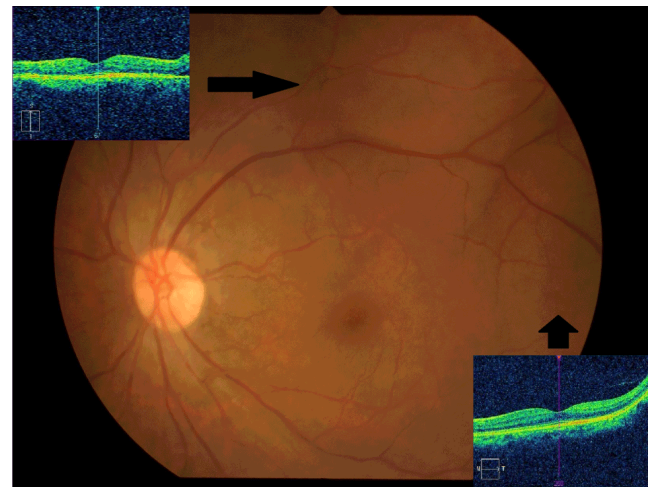


Figure 2: Fundus photograph of the left eye at initial presentation displays 2 small dome-shaped choroidal tumors at superior and temporal area (arrows). Both tumors separate from the macula. Optical coherence tomography (OCT) reveals serous retinal detachment at superior area (shown as an upper left inset). OCT reveals an elevated choroidal tumor at temporal area (shown as a lower right inset).

Computerized tomography (CT) revealed choroidal tumors in the both eyes, but other metastases were not detected. We diagnosed the tumors as choroidal metastases from breast cancer, because the tumors grew in both eyes, did not have calcification on CT image, and were yellowish white dome-shaped, which were common findings of metastatic choroidal tumors. She decided to receive a hormone therapy and a radiation therapy for the both eyes. She was followed for 6 months. The tumor in the right eye have increased in size, and

moreover, severe retinal detachment caused to lose her eyesight; BSCVA was light perception (Figure 3). As the tumors in the left eye has been almost stable, she has kept good visual acuity of the left eye; BSCVA was 20/20 (Figure 4). Other metastases have not been found. If the choroidal tumors in the left eye enlarge to involve the macula in spite of the conventional treatments, we will consider an option of intravitreal bevacizumab injection, which is reported to be less invasive and effective to decrease subretinal fluid [1].

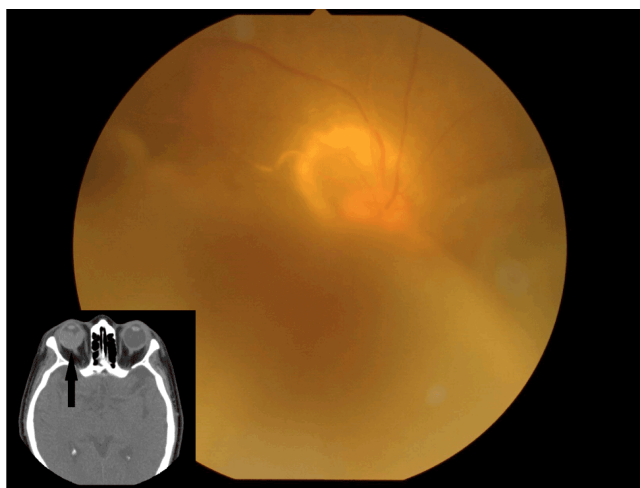


Figure 3: Six months after initial presentation, fundus photograph of the right eye displays an enlarged choroidal tumor with severe serous retinal detachment. CT reveals a choroidal tumor which occupies the greater part of the vitreous cavity (shown as an inset).

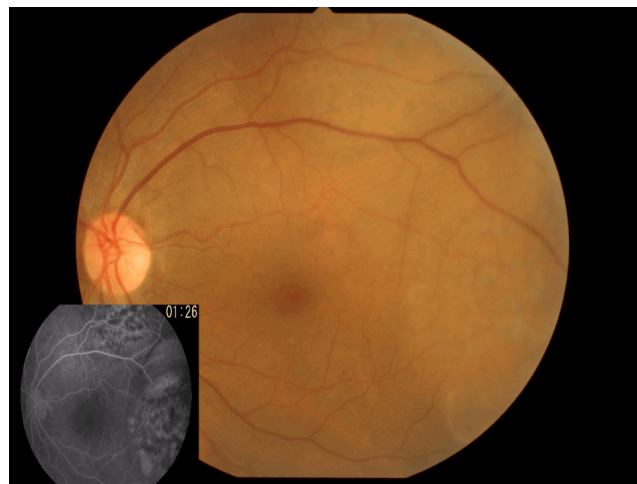


Figure 4: Six months after initial presentation, fundus photograph of the left eye displays 2 almost stable choroidal tumors at superior and temporal area. Fluorescein angiography shows clearly 2 choroidal tumors with contrast medium leaking (shown as an inset).

Breast cancers often spread to choroid as well as brain, as choroid is filled with blood vessels. Choroidal metastasis from breast cancer possibly occurs many years after breast cancer surgery [2,3]. It is important to pay attention to breast cancer patients with ocular symptoms, such as decreased vision or metamorphopsia.

References

1. Kim M, Kim CH, Koh HJ, Lee SC, Kim SS (2014) Intravitreal bevacizumab for the treatment of choroidal metastasis. *Acta Ophthalmol* 92: e80-82.
2. Liu T, Xu Y, Wan L, Yu B (2012) Choroid as the first recurrence site: 13 years after breast carcinoma. *J Cancer Res Ther* 8: 639-640.
3. Sanchez R, Betancourt L, Sanchez A, Velasquez E, Spinetti D, et al. (2008) Choroidal metastasis as first manifestation of systemic recurrence of breast cancer. *Breast J* 14: 498-500.