

## CLINICAL IMAGES

## Enophthalmos as a sign of metastatic breast carcinoma

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**A** 70-year-old woman, who had undergone a right mastectomy 17 years earlier for breast adenocarcinoma, presented with gradual deterioration of vision in her left eye and intermittent diplopia of at least 1-year duration. Her visual acuity was 20/40 in the left eye and 20/20 in the right. Enophthalmos, ptosis, induration of the periorbital skin, restricted eye movements and incomplete eyelid closure were seen on the left side, along with conjunctival injection with punctate corneal staining, indicative of ocular surface exposure (Figure 1).

Orbital computed tomography (Appendix 1, available at [www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.120726/-/DC1](http://www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.120726/-/DC1)) showed an ill-defined mass in the left antero-superior orbit. The biopsy results were consistent with estrogen-receptor-positive and HER2-negative metastatic breast carcinoma (Appendix 1). In the absence of metastatic disease elsewhere, the patient was started on letrozole. She may require orbital radiotherapy if her disease progresses.

Enophthalmos has many causes, including orbital fractures, silent sinus syndrome, orbital fat atrophy, orbital varices, orbital inflammation with fibrosis, and orbital tumours.<sup>1</sup> Orbital metastases are relatively uncommon, accounting for 1%–13% of orbital tumours.<sup>2</sup> Scirrhus (or fibrosing) breast carcinoma is the most common tumour that metastasizes to the orbit; it causes enophthalmosis by retraction of the orbital contents.<sup>2,3</sup> A long latency period, averaging 4.5–6.5 years, usually exists between the initial diagnosis of breast carcinoma and the detection of orbital metastases.<sup>2</sup>

A careful history and examination, assisted by orbital imaging (computed tomography or magnetic resonance imaging), are essential for diagnosing orbital metastases.<sup>4</sup> Enophthalmos may indicate the presence of metastatic breast cancer and may occur even if the primary lesion is occult.<sup>5</sup> Histopathologic examination should be considered, even for patients with a known history of systemic cancer, before planning treatment.<sup>4</sup>



**Figure 1:** A 70-year-old woman with metastatic breast carcinoma and enophthalmos, ptosis, thickening of the eyelids and conjunctival injection on the left side (A). On attempted upgaze (B), her left eye fails to elevate.

## References

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