Images in...

The lack of sleep, the pineal gland and breast cancer

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DESCRIPTION

A 57-year-old woman reported a 'decreased ability to sleep' for the past 6 months, adding that she had never suffered from insomnia earlier. She also suffered from a few additional symptoms: fatigue, irritability and an occasional 'headache' all of which she attributed to be resultant of her reduced ability to sleep. However, when she had a sudden onset of blurred vision and vomiting for the past 1 month, she visited her physician. Her history was significant for having been treated 9 years ago for T₁N₀M₀-staged breast cancer, with breast-conservation surgery, radiotherapy and adjuvant tamoxifen for 5 years.

MRI revealed a mass lesion (measuring 2.3 cm in its greatest diameter) occupying the region of the pineal gland (figure 1). This was hypointense/isointense on fluid attenuated inversion recovery, T1-weighted and T2-weighted images in comparison with grey-matter, with intense heterogeneous postcontrast enhancement. There appeared to be obstructive hydrocephalus—with dilated third and lateral ventricles (figure 2). An image-guided stereotactic biopsy confirmed metastatic carcinoma, which was positive for oestrogen and progesterone receptors.

Figure 2 Mass in the pineal region obstructing the third ventricle with a consequential dilatation of the lateral ventricles.

Figure 1 Coronal (A) and sagittal (B) contrast-enhanced T1-weighted MRI showing an enhanced mass lesions in the pineal gland region.

Learning points

- ▶ Even among patients treated for early-stage breast carcinoma, there indeed exists a risk of late distant relapse, and the importance of continued follow-up among asymptomatic patients is paramount.¹
- ▶ Metastases to the pineal gland are a rare phenomenon.² Stereotactic biopsy is a feasible option to establish histopathology among patients with pineal gland mass lesions.
- ▶ Annual follow-up of patients treated for breast cancer is to be continued indefinitely, since it offers not only an opportunity to examine the patient with regard to breast cancer but also a chance to monitor the side effects of long-term hormonal manipulation, which include a higher-risk of osteoporosis and an increased risk of endometrial carcinoma.

Contributor MR decided to publish the case, provided the images and took patient consent. MKG and SR wrote the article. RKS revised the article and set the image quiz questions.

Competing interests None.

Patient consent Obtained.

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Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Rastogi M, Gupta MK, Revannasiddaiah S, Seam RK. The lack of sleep, the pineal gland and breast cancer. *BMJ Case Reports* 2012;10.1136/bcr-2012-006763, Published XXX

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