A Case Presentation on Bilateral Breast Cancer
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Citation

Abstract
We present a case of a 56 year old female who presented with a short history of synchronous, bilateral breast lumps. Core biopsies of both lesions revealed different morphological adenocarcinomas in both breasts.

The recognised aggressive course and rapid progression of bilateral synchronous tumours was apparent in our patient who subsequently died 6 weeks after initial presentation with multi organ metastasis. This case illustrates the importance of screening for metastatic disease in patients presenting with bilateral breast lumps.

INTRODUCTION
A 56 year old female patient presented to the breast unit with a short history of bilateral breast lumps. On examination a 1 cm discrete lump was palpated in the upper outer quadrant of her right breast and a 2 cm lump in the axillary tail was felt in the left breast. Her past medical history included hysterectomy at the age of 26 for cervical carcinoma-in-situ; chronic back pain managed by the GP and an abnormal mammogram 5 years prior showing microcalcification.

She had a significant family history with a sister being diagnosed with breast cancer at the age of 55, and both her mother and maternal aunt being diagnosed with ovarian cancer in their forties. Mammograms of both breasts were carried out urgently due to the high index of suspicion.

Figure 1
Mammogram 1: Right breast. Medio-lateral view.

Figure 2
Mammogram 2: Right breast, cranio-caudal view.

Figure 3
Mammogram 3: Left breast, medio-lateral view.
Mammogram of the right breast had shown 3 masses, all in the upper outer quadrant. The largest was 2cm. Mammogram of the left breast revealed an irregularly shaped mass in the axillary tail (1.9cm). Core biopsies of the larger lesion in the right breast confirmed it to be a well differentiated adenocarcinoma whereas the smaller one was a moderately differentiated adenocarcinoma with a different morphology to the larger mass. Core biopsy of the left breast lump showed it to be a moderately differentiated carcinoma identical to the morphology of the smaller lesion in the right breast.

The patient was reviewed in breast clinic 2 weeks later with a view to perform a bilateral mastectomy. However clinically she had deteriorated rapidly; she was in severe pain and was short of breath with intermittent euphoria.

A whole body bone scan confirmed metastatic activity in multiple ribs, throughout the spine, pelvis and the proximal end of the long bones and in the scalp. Metastatic lesions were also noted in the liver and also possibly in the brain. The patient rapidly deteriorated and died within a week of final review.

**DISCUSSION**

Synchronous tumours are defined as two or more tumours where each are malignant, are distinct from each other i.e. of different histological type and where neither can originate with metastasis from another tumour. Our patients bilateral multiple tumours were consistent with this definition of being synchronous.

Bilateral synchronous breast cancer is an uncommon finding in women presenting with multiple breast lumps. It is reported to account for only 2% of women with breast cancer whereas metachronous breast tumours account for 5% of cancer cases. Although its aetiology is not well understood, a positive family history of breast cancer as noted in our patient is a strong association. However it appears that this familial link is more likely with metachronous bilateral breast cancer than either unilateral or synchronous bilateral cases. Furthermore the risk of having breast cancer is substantially increased with a first degree relative with bilateral breast cancer.

Unfortunately our patient had already developed multi organ metastasis and died subsequently. Such lower disease free survival and high rates of distant metastasis is a recognised feature of bilateral synchronous tumours which therefore has a worse overall survival compared to unilateral tumours. There does not however appear to be any difference in survival if synchronous tumours are compared to the metachronous ones.

In conclusion, we note that in women, who present with bilateral breast lumps, synchronous tumours should be considered as a possibility and investigations to screen for distant metastasis at presentation should be routine even in those who are asymptomatic.

**References**

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