

# Synchronous bilateral invasive breast carcinoma

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**Abstract:**

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Bilateral breast carcinomas are uncommon lesions, with most evidence supporting them to be independent tumours and not metastatic tumours. Synchronous breast carcinomas are carcinomas which arise within 3 months from the diagnosis of the first tumour. We report a case of synchronous bilateral breast cancer in a 32-year-old lady.

Keywords: Synchronous, Breast carcinoma.

**Case history:**

A 32- year-old lady presented with a 4 x 3 cm right breast hard lump of 4 months duration, with palpable right axillary lymph nodes. The left breast was apparently normal. There was no family history of breast cancer. FNAC of the right breast lump diagnosed a ductal carcinoma and the subsequent

right mastectomy specimen showed infiltrating duct carcinoma NOS, Grade II with areas of mucinous carcinoma and metastases to five axillary lymph nodes (Fig. 1 and 2). After surgery a week later while still in the hospital, she noticed a small lump in the contralateral left breast, which was a mobile 1 x 1 cm lump. No left axillary lymph nodes were

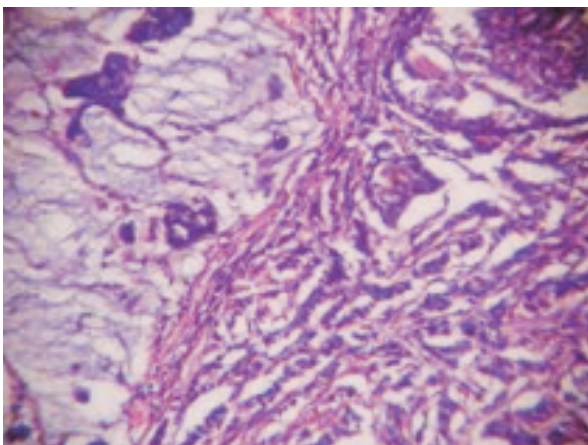
**Figure 1:**

Gross photograph of right mastectomy specimen showing a white infiltrative growth with mucinous areas (left)



**Figure 2:**

Photomicrograph showing right breast infiltrating duct carcinoma and mucinous carcinoma areas



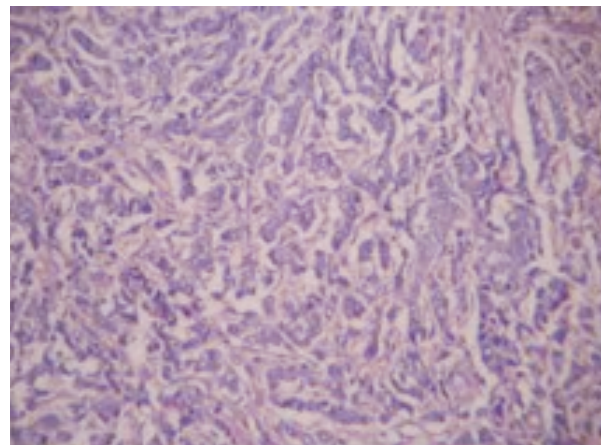
**Figure 3:**

Gross photograph of left mastectomy specimen showing a white infiltrative growth



**Figure 4:**

Photomicrograph showing left breast infiltrating duct carcinoma



## Case Report

palpable. FNAC of this mass showed presence of benign ductal cells, and cells with suspicion of malignancy. A lumpectomy was done which showed areas of intraductal and lobular hyperplasia and a small focus of intraductal carcinoma. The subsequent mastectomy specimen showed Infiltrating duct carcinoma NOS, Grade II with metastasis in two left axillary lymph nodes (Fig. 3 and 4). The patient was referred to the oncologist for further treatment.

### Discussion:

Breast cancer is one of the most important health problems in the world and affects a great number of women over the entire globe (1). Bilateral breast carcinoma is a rare clinical entity. These are of two types- Synchronous and Metachronous. Majority are metachronous with an incidence of 5-6% whereas synchronous have an incidence rate of 0.2-2 % (2). Synchronous breast carcinomas are carcinomas which arise within 3 months from the diagnosis of the first tumour (3). Most evidence supports bilateral breast carcinomas to be independent tumours and not metastatic tumours. When cancer is detected in the opposite breast, however, the question arises whether this tumour is a second cancer or a metastatic spread from the first breast cancer. A differentiation based on clinical and histopathological parameters defines a second primary, when either in situ lesions, a different histological type or a higher degree of histological differentiation can be demonstrated in the second cancer (4). In our case the fact that the second tumour also showed areas of hyperplasia and intraductal carcinoma in addition to invasive malignancy, supports the fact that this was an independent tumour and not a metastasis. The gradual increase in the incidence of synchronous disease during the 1970s coincides with the introduction of routine and bilateral mammography as part of the diagnostic work-up in women with unilateral cancer (2). Such work-up may entail that some preclinical bilateral cancers are detected early and classified as synchronous disease (perhaps in an earlier and more favourable stage) rather than diagnosed later as metachronous disease (5).

Family history plays an important role in the pathogenesis of bilateral breast carcinoma. Women with a first-degree relative whose breast carcinoma was diagnosed at an early age have a higher risk of developing bilateral breast carcinoma. There are numerous reports in the literature purporting to document the occurrence of unilateral and bilateral breast carcinomas in young women treated with irradiation for postpartum mastitis, Hodgkin disease, tuberculosis, and others diseases(6).

There are high rates of distant metastases for synchronous bilateral breast cancer and the prognosis is worse

than metachronous breast carcinomas (7). However contradictory data exists concerning the prognosis of patients with synchronous bilateral breast cancer (SBBC). Schmid et al (8) found that the prognosis of SBBC (synchronous bilateral breast cancer) was determined by the reference lesion; the contralateral second tumor had no additional impact on outcome. However Solh et al (9) found synchronous breast cancer to be more aggressive than metachronous breast cancer with a poorer outcome.

### Importance:

The early presentation and detection of the second malignancy while the patient was still recovering from the first surgery makes this a very interesting case of synchronous bilateral invasive breast carcinoma.

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