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SYNCHRONOUS SPORADIC BREAST AND COLON CANCER: A RARE CASE REPORT

Oncology

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ABSTRACT

Cancer is a serious health problem worldwide, being responsible from ¼ of all deaths. Cancers developing from more than one origin are called multiple primary cancers (MPCs) and is a rare entity with a reported frequency of 0.73%–11%. There are no guidelines for the management of synchronous tumours. Because of this, development of patient-oriented treatment strategy is necessary to decide which cancer to treat first and how to stratify further treatments. We present a case with synchronous sporadic breast and colon cancer. If adjuvant therapy is required, it should be directed towards the tumour with the more advanced stage. The prognosis of synchronous tumours depends on each tumour stage independently.

KEYWORDS

Multiple Primary Cancer, Breast Cancer, Colon Cancer, Synchronous Cancer, Non-familial, Sporadic

BACKGROUND:

Cancer is a serious health problem worldwide, being responsible from ¼ of all deaths. Cancers developing from more than one origin are called multiple primary cancers (MPCs) and is a rare entity with a reported frequency of 0.73%–11%.[1] MPCs can be divided into synchronous and metachronous tumours. Synchronous tumours are defined as two different tumours originating in the same patient that are detected at the same time or within 6 months of primary tumour diagnosis, whereas tumours developing 6 months after primary tumour detection are called metachronous tumours.[2] There are no guidelines for the management of synchronous tumours. Because of this, development of patient-oriented treatment strategy is necessary to decide which cancer to treat first and how to stratify further treatments. We present a case with synchronous sporadic breast and colon cancer.

Case Report:

A 54-year-old lady presented with features of large bowel obstruction (pain abdomen, abdominal distension and obstipation) for 3 days. She also gave a history of left breast lump for 5 months with history of rapid increase in size for which she did not seek medical advice. On examination: per abdomen was soft, grossly distended, no mass felt, no shifting dullness. No supraclavicular LNs. Local Examination of breasts revealed a 6x6cm lump over left upper outer quadrant of left breast, fixed to breast tissue but not fixed to skin or underlying muscles/chest wall. Multiple mobile left axillary central nodes, largest 1x2cm.right breast and axilla were normal. she had undergone colonoscopy outside which showed a large exophytic sigmoid colon growth causing complete luminal obstruction and biopsy showed adenocarcinoma. S.CEA 42 ng/ml(raised). Mammography (Fig 2) showed radio-opaque shadow in left breast with irregular edge and spiculated margins, BIRADS IV. CECT Abdomen (Fig 1): moderate dilatation of entire colon with abnormal circumferential thickening of sigmoid colon; Few pericolic lymph nodes; Liver was grossly normal; no ascites. PET CT Scan revealed no other uptake other than sigmoid colon, left breast and left axilla. She underwent emergency loop transverse colostomy and corecut biopsy of left breast lump which revealed invasive intraductal carcinoma.

After stabilisation for few days she was planned for definitive operation and underwent Left Modified Radical Mastectomy(MRM) And Left Sigmoid Colectomy in the same setting. Final Histopathology Report showed Infiltrating Ductal Carcinoma-NOS(Grade III)-Left Breast with involvement of 7/15 nodes. pT2N2Mx. And Sigmoid Colon Adenocarcinoma(Grade II) infiltrating muscle layer but serosa free with metastasis to pericolic lymph nodes(2/18) with adequate margins of 5 cm distally and 11 cm proximally.pT3N1bMx. After recovery and stitch removal, she was sent to Medical Oncology Department for adjuvant chemotherapy.

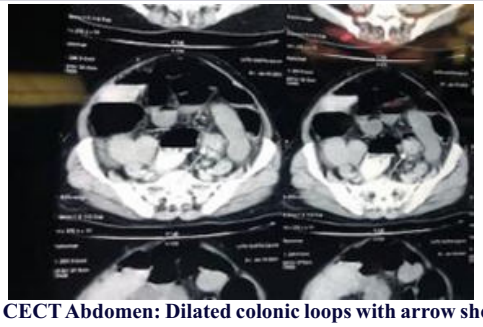

Fig 1: CECT Abdomen: Dilated colonic loops with arrow showing left sigmoid colonic mass

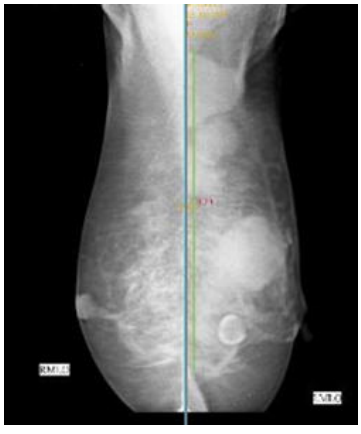

Fig 2: Bilateral Mammography: Showing radio-opaque left breast mass with left axillary lymph nodes

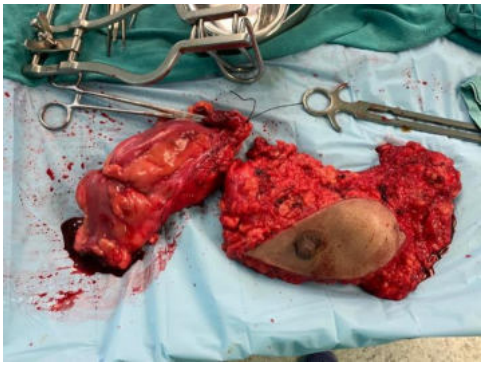

Fig 3: Specimen of Sigmoid colectomy and Left MRM

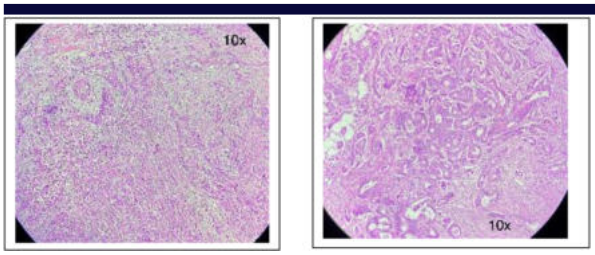

Fig 4: Microscopic images of ca breast and ca colon respectively

DISCUSSION:

The incidence of breast and colon cancer in women at the same time is 3.85%.[3] The clinical and pathological features of synchronous tumours of the breast and colon are not fully established and controversy exists as to the relationship between the two.[4]

There is correlation between family history and synchronous tumours. A specific genetic mutation, CHEK2*1100delC (CHEK2), has been described in patients with hereditary breast and colorectal cancer phenotype.[5] It has been reported to be a low-penetrance breast cancer-predisposing gene associated with a threefold to fivefold increased risk of breast cancer. It has also been shown to confer a risk of colorectal cancer in patients with hereditary non-polyposis colorectal cancer (HNPCC). Its function by either conferring a high risk of one cancer type and a slightly elevated risk of the other or through a predisposition to one of the two cancers and chance occurrence of the other, may help to explain synchronous occurrence of breast and colon cancer.[6] Perhaps in the future such genetic testing will become applicable to patients such as in our case. However, our patient does not fulfil The Amsterdam II Criteria used to diagnose Lynch syndrome, and breast cancer is not included as one of the cancer subtypes found in HNPCC. There was no family history in our case and genetic testing was not done. In the absence of any family history, it is likely to be sporadic synchronous primary breast and colon cancer.

Because of the lack of definitive guidelines for synchronous tumours, the management of each patient should be determined as the outcome of MDT cancer meetings. The prognosis of synchronous tumours depends on each tumour stage independently. Compared with single tumours, synchronous tumours have no worse prognosis with effective management. If adjuvant therapy is required, it should be directed towards the tumour with the more advanced stage. The prognosis of synchronous tumours depends on each tumour stage independently.

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