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Case Report

Male Breast Cancer- Report of Two Cases

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Abstract

Male breast cancer is rare. It accounts for 0.2% of all cancers, and 1% all breast cancers. Most patients present late for several reasons, including the absence of early signs and symptoms, and reduced awareness of the existence of such pathology among patients and physicians, Reporting these cases from among the Bangladeshi population, we tried to observe any differences in clinical manifestation from those reported in the literature, and aimed to increase the value assigned to male breast as a source of pathology among patients and physicians as well.

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Introduction

The epidemiology of male breast carcinoma in the Bangladesh and the region is not known, However, it accounts for less than 1% of male cancers worldwide, and usually presents late in life at a more advanced stage. Risk factors have been basically attributed to old age, genetic, endocrine factors or exposure to radiation or female hormones. Decreased awareness of the existence of such a disease among male patients and physicians leads to its late presentation, when the majority of cases are invasive with distant metastasis and subsequently carry poorer prognoses. Specific mammographic characteristics of male breast cancer do exist; yet fine needle aspiration and surgical biopsy confirm the diagnosis and delineate the proper treatment modalities. Treatment modalities depend on the stage of disease at presentation.

Presenting cases of male breast cancer among male population and reviewing related literature; we aim to highlight the importance of increased awareness towards the existence of such a disease among the Bangladeshi population, and to observe any differences in clinical manifestation from those reported in literature.

Case Report-1

A Forty eight year old male namely M A Uddin of Vill. Belghoria, under Durgapur Upozilla of Rajshahi District came to our clinic on 3rd May 2002 with Right breast pain of three months duration. Examination revealed a 2.5×2 cm hard medial sub-areola tender mass with irregular borders with fixed to underlaying structure. This was associated with mild right nipple retraction and a 1.5× 1.5 cm non-tender right axillary mode. The mammography report noted a 2 cm stellate mass of right breast consistent with carcinoma. Three small lymph nodes present at right upper outer quadrant, one dense in craniocaudal view and may be involved with metastasis. Carcino-embryonic antigen (CEA), liver function tests, calcium, prostatic specific antigen, right upper quadrant ultrasound and chest x-ray were reported as normal. A fine needle aspiration revealed findings consistent with invasive carcinoma. The

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patient underwent modified right radical mastectomy with right axillary sampling on 15th May 2002. Histopathological examination of the tumer revealed infiltrating ductal carcinoma, moderately differentiated (Grade-2). There were cords and nests of malignant epithelial cells embedded within dense collagenous stroma; some are surrounding normal non-neoplastic ducts. In addition, there were foci of intraductal comedo carcinoma featuring dilated ducts lined by malignant epithelial cells with central necrosis.

The patient was given chemotherapy with Docetaxel 80 mg I/V & Doxorubein 60 mg I/V with supportive drugs 3 weekly and 6 such cycles were given. After completion of chemotherapy he was given Radiotherapy in multified technique & 5000 cgy was given in 5 weeks. Patient is now on follow up regularly & he is well now.

Case Report-2

A Forty year old male namely M H Ali of Ranibazer, Rajshahi city came to our clinic with left breast pain of two month's duration on August 2006. Examination revealed a 2×1 cm hard medial sub-areola tender mass with irregular borders with fixed to underlaying structure. This was associated with mild left nipple retraction and a 1× 1 cm non-tender left axillary mode. The mammography report noted a 1.5 cm stellate mass of left breast consistent with carcinoma. Two small lymph nodes present at left upper outer quadrant, one dense in craniocaudal view and may be involved with metastasis. Carcino-embryonic antigen (CEA), liver function tests, calcium, prostatic specific antigen, right upper quadrant ultrasound and chest x-ray were reported as normal. A fine needle aspiration revealed findings consistent with invasive carcinoma. The patient underwent modified right radical mastectomy with right axillary sampling on August 20, 2006. Histopathological examination of the tumer revealed infiltrating ductal carcinoma, moderately differentiated (Grade-2). There were cords and nests of malignant epithelial cells embedded within dense collagenous stroma; some are surrounding normal non-neoplastic ducts. In addition, there were foci of intraductal comedo carcinoma featuring dilated ducts lined by malignant epithelial cells with central necrosis.

After mastectomy on 20th August he was given chemotherapy with Docetaxel 80 mg I/V & Doxorubein 60 mg I/V with supportive drugs 05th September and he is advised to come after 3 weeks..

Discussion

There is no comprehensive data on male cancer in our country, however, the American Cancer Society estimates that within 2010, 1500 new cases of male invasive breast cancer will be diagnosed in the USA. It usually occurs in men of advanced age and is often detected at a more advanced state, Genetics, exposure to radiation, endocrine problems and history of benign breast lesions are common risk factors in both men and women. Specifically to men, however, risks also include old age, high socio-economic status, exposure to female hormone (patients with prostatic cancers on Estrogen treatment), and patients with reduced testicular function (Klinefelter's Syndrome, mumps orchitis, and undescended testicles).

Patients with hyperprolactinemia and/or gynecomastia have also been associated with male breast cancer, through to lesser extent.

A painless lump beneath the areola, usually discovered by the patient himself, is the most common presenting symptom in patients with male breast cancer. Cancer size is usually less than 3 cm in diameter and usually associated with nipple retraction, discharge, and fixation of breast tissue to skin and muscle. Breast pain occurs less frequently, and approximately 50% of men with breast cancer have palpable axillary lymph nodes. Mammography detects 80-90% of patients with breast cancer who present with suspicious masses. Mammographic characteristics of male breast cancer are sub-areola and eccentric to the nipple. According to appelbaum et al. "Margins of the lesions are well defined, calcifications are rater and coarser than those occurring in female breast cancer" 6. Fine needle aspiration and surgical biopsy in high-risk patients will confirm the diagnosis and provides an indication about potential response to hormonal treatment. Though male breast cancer represents only 1% of all breast cancers, 80-90% of cancers are infiltrating (invasive) ductal carcinoma, mostly because of delayed diagnosis. This type of cancer breaks

through the duct wall and invades surrounding fatty tissues. The early stage of the disease is ductal carcinoma is situ, cancer is confined and limited to ducts. Paget's disease of the nipple, lobular carcinoma and sarcoma are far less common in male breast cancers compared to female.

The presence of cancer cells in axillary lymph modes through tissue diagnosis delineates the extent of spread of disease. Distant metastases include bone, lung, lymph node, liver and brain involvement. Radical mastectomy with subcutaneous reconstruction is the most frequently used procedure, while simple mastectomy remains limited to patients either with good prognosis and/or to those patients with very poor prognosis and at high risk for extensive surgery. Hill et al, reported an overall five year and ten year survival rate in patients with localized disease to 86% and 64% respectively. With positive lymph nodes, the five and ten year survival rate decreased to 73% and 50% respectively. Radiation therapy is used for patients with localized disease and high risk for surgery, but it is given more often to alleviate symptoms in patients with advanced disease. Patients with extensive metastatic disease are treated by hormonal manipulation where two thirds of these patients respond to hormonal therapy. Chemotherapy is another alternative mode of treatment.

Ablation treatment has been successful in some cases. Orchidectomy is the initial procedure in this option due to the relatively good response and relatively decreased side effects and complications. If this is not successful, adrenalectomy and hypophysectomy show comparable results. These therapies lead to tumor regression, relief of symptoms and an increase in the survival rate. Finally, additive hormonal therapy; synthetic estrogen (DES) Diethylstilbestrol showed relative effectiveness in one study.

Male breast cancer, though very rare, does exist. Efforts to increase awareness among patients and physicians will lead to earlier presentation, and therefore diagnosis before spreading to the axilla and other organs. Like the majority of cancers, male breast cancer can be cured or controlled if diagnosed and treated properly at its early stages. Clinical presentation of our male patient resembled those reported in literature. However, conclusions regarding therapeutic modalities and related prognosis need further larger studies.

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