ABSTRACT

Male breast cancers is a rare condition among men and accounts for less than 1% of all breast cancers. Due to its rarity, male breast cancer is not widely reported especially in Asian population. We present a case of 64 years old man that was diagnosed with right breast invasive carcinoma with background history of hypertension, glaucoma and history of thoracic aneurysm before. There was no significant risk of genetic and hormonal factors for his breast cancer. After work-out, we planned for right mastectomy and axillary clearance for him.

INTRODUCTION

Breast cancers in female is modern epidemic with wide recognitions of its increasing incidence and high prevalence. While male breast cancers just account less than 1 percent and is less known. They often present in later stage of disease, mean age at presentation was 64 years old. This situation happened most likely due to lack of awareness that men can develop breast cancer.

CASE REPORT

A 64 years old man presented to our Breast Awareness and Research Unit (BestARi) with one year history of right breast lump that progressively enlarging for past three months prior to presentation. He had history of thoracic bypass surgery 8 years ago. Currently he had hypertension and is on single antihypertensive taken from local clinic. He did not drink alcohol and had stopped smoking 10 years ago.

Physical examination showed there was palpable lump over right breast, located at upper outer quadrant of right breast measuring 3x4cm. The lump was firm in consistency, mobile and non-tender. There was a single, mobile right axillary lymph node measuring 1x1cm palpable over right axilla.

As part of triple assessment, ultrasound breast was done and showed lobulated heterogeneous mass seen at right breast 9 o’clock position, measuring 1.9cmx3.2cmx2.7cm with posterior enhancement and microlobulation at some area (BIRADS V). Core biopsy was done and histopathological examination result came back as invasive breast carcinoma, no otherwise specific with ER and PR were positive and cerB2 was negative (1+). Subsequent CT staging was negative for distant metastasis. He was then scheduled for right mastectomy and axillary clearance.
DISCUSSION

The basic ethology of male breast cancer is still poorly understood, possible of its relative rarity. However, its incidence is increasing nowadays. Male breast cancer patients tend to seek treatment late, maybe due to lack of awareness among the community that men also have tendency to get this kind of illness. Thus, the mean age factors for male breast cancers is around 64 years old, which is 10 years later than the one with female breast cancers.

Major determinants for breast cancer risk are environmental factors while a small proportion has genetic preponderance with some reporting having family history of cancer. The listed environmental factors are age, hormonal factors, marital status, previous history of breast diseases, family history and as well as previous history of cancer treatments. There is a study showed relationship of high oestrogen level with occurrence of male breast cancer. Men's breast tissues has slightly different structure and less developed compared to women. High oestrogen level may stimulate further development of breast tissues growth. There are several conditions that may cause increase level of oestrogen in men such as obesity, consumption of hormonal treatments such as transexuals to develop female characteristics, heavy alcohol usage and also having medical conditions such as thyroid or liver diseases that tend to lower androgens level and increase oestrogen level in men.

There are no routine screening for male breast cancer. The lack of awareness that men do get breast cancer is not just by the public but also the health professionals. Same as in women, men may presented with painless breast lump or thickening of breast tissue which accounts up to 90% of most male patients, changes over the skin covering the breast such as dimpling, puckering or redness, nipple discharges or retraction and as well as axillary mass.

A joint effort by researchers in Europe found similarities between male breast cancer and female breast cancer as well as some differences. More than 90 percent of male breast cancers were oestrogen receptor–positive, whereas around 65 to 70 percent of female breast cancers are oestrogen receptor–positive and positivity of both oestrogen receptor and progesterone receptor was associated with better outcome in male breast cancers, similar to female breast cancers.

The mainstay of breast cancer surgery for men is modified radical mastectomy. This procedure involves removal of the ipsilateral breast tissue, the nipple-areolar complex, and levels I and II of the axillary contents (axillary lymph nodes underneath and lateral to the smaller pectoral muscle). Because nearly all male breast cancers approach the deep surgical margin, the fascia of the pectoral muscle should be stripped off the greater pectoral muscle during surgery. For
patients for whom deep margin status is of concern, a portion of the pectoral muscle should be resected.

Following surgery, adjuvant chemotherapy with cytotoxic agents influence survival rate especially in male breast cancer patients with lymph node positive. Radiation therapy is generally indicated when the risk of locoregional recurrence following mastectomy and systemic treatment exceeds 15% or 20%. Male breast cancer presents usually as luminal A like subtype, 88% express androgen receptors, only 1% is triple negative, and 9% HER-2 positive. A total of 77% of male breast cancer is treated by adjuvant endocrine therapy—mainly tamoxifen (88%)—and the ER and PR status being prognostic with high expression associated with better outcomes. Unlike in females, the use of aromatase inhibitors in men which are anastrozole, letrozole, and exemestane may arise a problem because the testicular production of estrogen is independent of aromatase and accounts for approximately 20% of circulating estrogens.

CONCLUSION

Overall, the prognostic factors of male breast cancers depend on tumour size, grade, lymphatic invasion, axillary node status and staging of the disease. Due to late presentation; men have more advanced disease at diagnosis than women. Sites of metastases are similar to those in women and include bone, lung, liver, brain and others.