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Giant phylloides tumour of the breast: management challenges

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Introduction

The phyllodes tumour, originally described by Juhannes Muller in 1838, is rare distinctive fibroepithelial tumour of the breast. The median size of the phyllodes tumours is about 4cm. Twenty percent of the tumours grow larger than 10cm, the arbitrary cut off point for the designation of a giant tumour.[1] We report here a case of a giant phyllodes tumour of the right breast and discuss the management challenges. To our knowledge this case present one of the biggest phylloids tumour of the breast reported in the literature.

Case presentation

A 41- year- old female presented to the our patient clinic of Alexandria oncology center with two years history of gradually growing giant tumour of her Right breast with pain. She denied any weight loss or loss of appetite and had no history of trauma. There was no personal or family history of breast cancer and her past medical history was unremarkable. Her first menstrual period was at the age of 12 and she had 3 healthy daughters. On physical examination, the patent right breast showed some tenderness and appeared extensively swollen with huge globular lobulated mass with thinning out of the skin due to marked tension with areas of skin ulceration. The contralateral breast was of normal size with no palpable masses. Axilla was clinically free with no palpable adenopathy. All laboratory investigations were within normal values.

Mammogram was not possible because of the size of the tumour. Breast U/S showed polylobulated mass with cystic and solid components. Core tissue biopsy showed mixed epithelial stromal proliferation suggestive of phylloides tumour. CT chest, neck and abdomen were unremarkable with no evidence of distant metastasis. Right modified radical mastectomy with axillary clearance of level I and II because of high suspicion of malignancy was performed.

The excision scope was determined based on the size of the tumour. To achieve a negative margin, the incision margin was 2cm away from the tumour external border. The tumor measured 46 x 37.5x 29cm and weighed 8.6kg ex vivo. Microscopically, the tumour was composed of compressed ducts lined by epithelium arranged in clefts and surrounded by overgrowth of stroma arranged in a leaf–like structure, the pathologic findings was consistent with borderline giant phyllodes tumour. The resection margin was negative with tumour free zone that ranged from 1 to 1.5cm. No malignancy detected in the dissected axillary nodes. Horrible defect was left behind and a bipedicled TRAM flap was the option of choice to graft the defect taking into account the huge defect that needs a large flap with adequate blood supply. The abdominal fascial defect was repaired with prolene mesh. Recovery was uneventual apart from small area of ischemic necrosis that was debrided and closed with sutures.

Discussion

Phylloides tumours are mesenchymal tumours of the breast that exhibits a range of clinical and pathological presentations.[2] They are divided into benign, borderline, and malignant histotypes based on the microscopic appearance of the stromal components.[3] Histologic appearance may not however, correlate with clinical behavior. Metastasis was seen in 25% to 31% of malignant tumours, but only in 4% of all phylloides tumours.[4] Surgical management selection between breast conserving surgery versus mastectomy of the phylloides tumour has also been a source of debate over the years. However, recent studies have shown no difference in terms of metastasis free survival or overall survival.

About 20% of phylloides tumours would be considered giant or greater than 10 cm in maximum diameter.[5] There is a continuing debate that persists over the prognostic significance of the tumour size. Thus, appropriate cut off values for tumour size and associated prognosis have never been well defined. Depending on the size of the breast and location of the tumour, mastectomy with complete removal of all visible tumours may also be required for giant tumours to prevent recurrence.[6] Phylloides tumours do not typically metastasis via the lymphatics and removal of the axillary lymph nodes is not warranted unless there are palpable nodes.

As in our case, the patient presented with giant phylloides tumour of two years duration. A core tissue biopsy was consistent with the diagnosis phylloides tumour. The management consisted of mastectomy with clearance of level I and II lymph nodes because intra-operatively level II lymph nodes were found to be enlarged. Bipedicled TRAM flap was the choice for immediate reconstruction based on the fact that we have a huge defect that needs a large flap with reliable blood supply. The use of two pedicles for unilateral reconstruction have been demonstrated to be a simple way of improving the blood supply to the classic monopedicled TRAM flap. It is able to provide the surgeon with an excellent amount of well-perfused abdominal tissue comparable only to techniques using free flap transfer. The principle indication is to increase the circulation to the abdominal flap and decrease the complications such as fat or cutaneous necrosis particularly in patients with risk factors as smoking, obesity, previous abdominal surgery, radiotherapy and existence of systemic disease

(diabetes, hypertention).[7] Abdominal wall hernia (20%),[8] flap necrosis, seroma are the commonest complications encountered following this technique.

Conclusion

Giant phyllodes tumours are rare, and mastectomy is preferred for complete tumour excision. A bipedicled TRAM flap is recommended to provide a more reliable blood supply to the unilateral reconstruction in patients at high risk for flap loss and to support larger flap for patient with large defect.

Acknowledgments

None.

Conflicts of interest

Author declares that there is no conflict of interest.

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