

Batwing Technique in Large Volume Excision of Breast Lesions: Case Report

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ABSTRACT

Oncoplastic surgical techniques are seeing widespread use for excision of large volume breast lesions. Batwing technique is one of the volume displacement techniques that can be used to manage lesions in central quadrant of the breast. Such techniques are still underused in Nepal. Here we present three cases with large volume benign breast lesions managed with simple, easy-to-learn technique of Batwing oncoplasty.

Keywords: *Batwing, fibroadenoma, oncoplasty, phyllodes*

INTRODUCTION

Oncoplastic procedures in breast have addressed the shortcomings of breast-conserving surgery to allow for generous resection of tumors of breast without compromising the cosmetic outcome and oncological principles.¹ Initially developed for carcinomas of breast, these techniques can also be applied to the management of giant fibroadenomas and phyllodes tumors.² Volume loss of more than 20% in BCS (breast conserving surgery) are likely to result in cosmetic failure.^{3,4} These are remedied to an extent with oncoplastic procedures. Larger resections are better managed with volume replacement techniques of oncoplasty. In this report, we show how 'Batwing' technique can also be used to manage large volume resection with good cosmetic outcome.

Batwing technique is a volume displacement technique of oncoplasty used for excision of breast malignancy located in upper aspect and central quadrant of breast within a few centimeters but not directly involving nipple-areolar complex (NAC).^{5,6} It consists of two semicircular parallel lines above NAC with two angled incisions to connect these two lines in a wing pattern.^{5,6} As the wing extends medially and laterally, it allows full thickness fibroglandular excision of larger lesions medial or lateral to NAC. The breast is reshaped with advancement of fibroglandular tissue

and skin with absorbable sutures. In cases of ptosis of breasts, it also allows for pulling up of the nipple.

CASE PRESENTATION

First case was an 11 years-old premenarchal female with fast growing lump in right breast for one year. No history of trauma, nipple discharge or similar illness in family members. On examination, her breast was pendulous with nipple-areola complex (NAC) pointing down. The lump was in dependent position of breast measuring 11x11 cm. Axilla revealed no lymphadenopathy. Nipple was 26 cm from manubrium while on normal side was 18 cm. Fine needle aspiration cytology (FNAC) was suggestive of fibroadenoma. She underwent batwing technique for excision of lump. As the NAC was larger, excess areola was de-epithelialized to make bilateral NAC symmetric. At two weeks follow up breast contour was well maintained with good cosmesis (Fig 1). Final histopathological examination (HPE) report confirmed FNAC findings.

Second case was a 29 years-old unmarried female with progressively increasing lump in left breast for four months. She attained menarche at 15 years of age. No other significant history. On examination, the breast was diffusely enlarged with 13x15 cm firm mass in superior and retroareolar regions of breast. Mass was free from skin and underlying pectoralis.

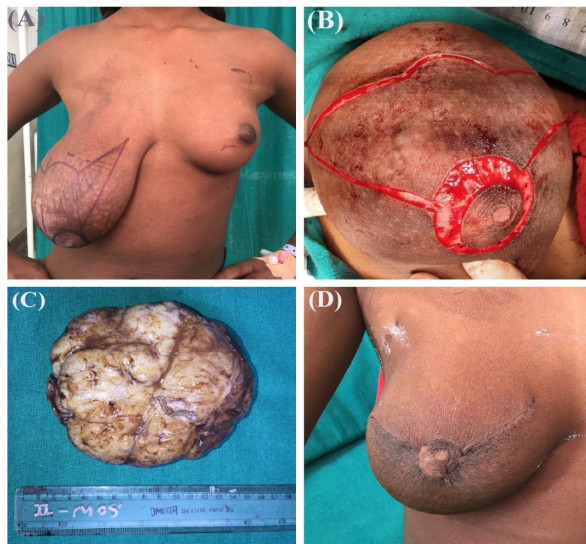


Figure 1. (A) Pendulous right breast with NAC pointing down (B) Incision, note the periareolar de-epithelialization to make NAC symmetric (C) Excised specimen (D) At 2 weeks well maintained contour with good cosmesis

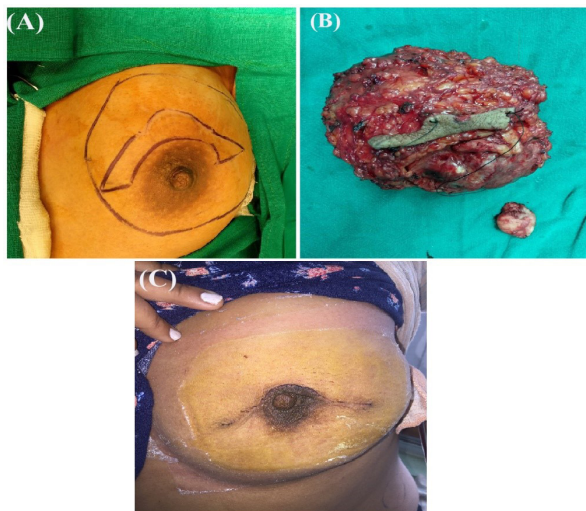


Figure 2. (A) Marking showing the tumor (B) Excised specimen, note the fibroadenoma adjacent to the mass (C) Maintained contour of breast at two weeks despite large volume excision

Trucut biopsy of mass revealed phyllodes tumor. The mass was excised with batwing oncoplastic technique. HPE of excised mass showed phyllodes tumor with adjacent separate distinct fibroadenoma (Fig 2). Breast contour was maintained at 2 weeks with good cosmetic outcome.

Third case was a 16 years-old unmarried female with progressively increasing painless lump in right breast for one year. She attained menarche at 15 years. Other history was unremarkable. On examination, right breast was tensely enlarged with 11x14 cm firm mass in lateral and retroareolar regions with nipple retraction. Axilla was unremarkable. FNAC was suggestive of fibroadenoma which was coherent with final HPE report (Fig 3). Post-excision, breast contour was well maintained with NAC at same level.

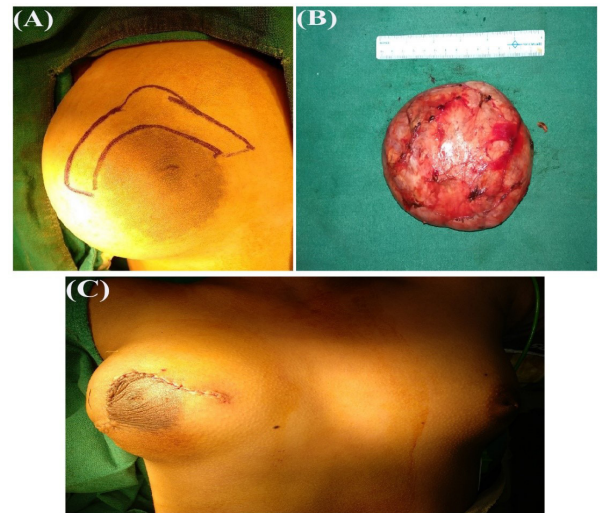


Figure 3. (A) Tensely enlarged breast (B) Excised specimen (C) Post-excision photograph showing maintained contour despite large volume excision

DISCUSSION

More than 20% breast volume excision leads to unacceptable cosmetic defect.³ Larger breast lesions can be managed by mastectomy, free flaps or oncoplastic techniques.⁷ Mastectomy leads to anxiety, depression, poor sexuality and self-esteem⁸ while free flaps are associated with longer operative time and more morbidity. Oncoplastic techniques which integrate cancer resection with plastic surgery techniques are free of these shortcomings. These techniques can be either volume displacement or replacement techniques. Volume replacement techniques are ideal for large breast volume excision. However, volume displacement technique like Batwing technique which is a level II OPS (oncoplastic surgery)⁴ procedure can even be applied in large volume excision. In our case, we removed upto 15cm sized benign phyllodes tumor with good cosmetic outcome. Batwing mammoplasty has good patient satisfaction with low complications compared to Wise pattern mammoplasty.⁹ Though the first case might have benefited from Wise pattern mammoplasty, we stucked to Batwing due to younger age of the patient (less tissue damage)and comparable cosmetic outcome with lower complications.⁹ As it involves an incision that centers around nipple-areolar complex (NAC), in asymmetric large areola, excess areolar skin can be de-epithelialized as in the first case for better cosmesis. Though other oncoplastic techniques are used in management of benign breast lesions in literature,^{10,11} there is only a case report on use of Batwing in management of giant fibroadenoma¹² which has reported good cosmetic outcome. Our study is unique in that we assessed Batwing technique in three patients with benign breast lesions.

Use of oncoplastic breast conserving surgeries is minimal in Nepal. Data from a prominent tertiary

care cancer hospital in Nepal showed almost all (99%) of surgeries in invasive breast cancer to be mastectomies.¹³ With increasing information and awareness, use of oncoplastic techniques may increase in future in Nepal.

CONCLUSION

Batwing volume displacement oncoplastic technique can be applied even for larger benign breast lesions with good early cosmetic outcome without compromising margins.

CONFLICT OF INTEREST

None declared.

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