

Various Uses Of Pectoralis Major Myocutaneous Flap(PMMF) In Breast And Endocrine Surgery

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Introduction

Pectoralis major myocutaneous flap (PMMF) is a rotational advancement flap which is a reliable and versatile flap mainly used in head and neck surgery. It is usually used to cover large defects left behind by radical resection done for malignancy whereby primary closure is not possible. Here we describe a case series of various situations the flap has been utilized with good outcomes in our practice.

Case 1- Lateral Aspect of Neck Defect over



Fig 1



Fig 2

61 year old lady presented to the ENT department with a rapidly enlarging huge right sided neck swelling with skin ulceration for the past 3 years(Fig1). Investigations revealed she had papillary thyroid carcinoma with enlarged multiple cervical nodes, invasion to the parotid and lung metastasis further complicated with right vocal cord palsy. She was told by her initial treating doctor that she is for palliative intent. She was referred to our centre after a year for a second opinion and we attempted radical resection of the thyroid and the large nodes. However, the skin coverage could not be achieved hence a pectoralis muscle flap was done to cover the defect. The post operative margins were clear and she underwent radioiodine therapy. She is doing very well currently with 6 monthly follow up(Fig 2).

Case 2 - Manubrium-Sternal Defect Cover Following Radical Resection for Hurthle Cell Carcinoma

A 54 year old lady, presented with central chest wall swelling for 6 months which was increasing in size. Her imaging revealed left goiter with retrosternal extension, neck nodes, invasion to the hyoid bone and trachea. It is also reported to have metastasis to lung and lytic lesion seen in the manubrium sternum(Fig3). The biopsy report showed Hurthle cell carcinoma. The patient underwent a total thyroidectomy, total laryngectomy, modified radical lymph node dissection. This left a 10x15 cm defect over the sternum. A pectoralis major myocutaneous flap was used to cover the defect(Fig4). She is currently well and undergoing further treatment under radionuclear medicine team.

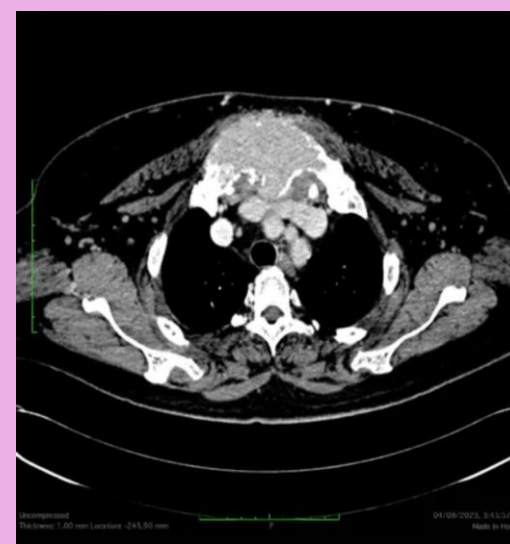


Fig 3



Fig 4

Case 3- Rib Plate Cover Following Radical Resection for Papillary Thyroid Cancer.

A 65 year old gentleman presented with anterior neck swelling for 5 months which was rapidly increasing in size. It was a papillary thyroid cancer invading the manubrium sternum with metastatic cervical and mediastinal nodes. He underwent total thyroidectomy with modified radical node dissection along with manubriectomy, bilateral clavicle 1st and 2nd rib resection. A single rib plate was placed across the 2nd rib defect for the chest wall stability(Fig5). Left PMMF was used as a cover to protect the rib plate(Fig6). He is recovering well after a stormy journey of ventilatory issues and surgical site infection.



Fig 5



Fig 6

Discussion/Conclusion

PMMF is a good option for coverage following head, neck and upper chest radical resection providing single stage restoration. It has a flexible design for many uses, easy harvest, constant vascular configuration, abundant blood supply and considerable reliability. The PMMF can be safely used for patients needing salvage reconstruction and those who are at a higher risk for free flaps.

Reference

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