



AXILLARY DRAIN MIGRATION LEADING TO HEMATOMA FOLLOWING MODIFIED RADICAL MASTECTOMY: A CASE REPORT

Surgery

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ABSTRACT

Background- Breast carcinoma is the commonest malignancy in females for which modified radical mastectomy is an important modality of management. Erosion of perforator vessel due to migration of axillary drain to flap region has not been reported as a cause of hematoma formation as per available literature. We report a case of 75 year female presented with complaint of painless lump in her left breast for one month. She was diagnosed of having carcinoma breast for which modified radical mastectomy was done. On 5th postoperative day, fresh bleed was noted from the suture line and a soft fluctuant swelling was felt in the region of lower flap. Bed side exploration of the wound was done and was found to have hematoma formation due to erosion of perforator vessel by migration of axillary drain. Hematoma formation due to flap erosion caused by the migration of axillary drain is an unusual complication which can be avoided by moderating the intensity of shoulder exercises and proper placement of drain in the axillary region. In case of hematoma formation, early exploration of wound, achieving hemostasis and re-position of the drain in axilla is recommended.

KEYWORDS

hematoma, mastectomy, postoperative hematoma, drain erosion, early complication.

INTRODUCTION

Breast carcinoma is the commonest malignancy in females for which modified radical mastectomy with or without reconstruction is an important modality of management. The complications of mastectomy can be categorized into early or late. Early complications are those which occur within four weeks of the mastectomy whereas late complications occur after the four weeks^[1]. The early complications of modified radical mastectomy include hematoma, seroma, flap necrosis, wound infection and paresthesia. Seroma is the most common complication with incidence reported as high as 85%^[2]. Although not as common as seroma, hematoma is also a complication of MRM with prevalence varying from 2 - 10%^[3]. Various causes of hematoma formation have been proposed, but erosion of perforator vessel due to migration of axillary drain to flap region has not been reported as a cause of hematoma formation as per available literature.

Case Report

A 75 year female presented with complaint of painless lump in her left breast for one month. On examination the lump was 4x3 cm in size non tender, hard, irregular, well defined, fixed to breast tissue and free from underlying muscles as well as overlying skin. Single ipsilateral, non tender, firm and mobile central lymph node of size 1x1 cm was also present in the axillary region. Trucut biopsy was taken and relevant investigations were done as per protocol. She was diagnosed as infiltrating ductal carcinoma with clinical staging of T2N1M0. Modified radical mastectomy was done and two negative suction drains were placed; one below the skin flaps and the other in axillary region. She was managed as per standard postoperative protocols. Drains were maintained at full suction pressure and no compression dressings were used. Mobilization of upper limb was advised on 1st postoperative day and she started vigorous upper limb exercises. The flap drain was removed on 3rd postoperative day. On 5th postoperative day, fresh bleed was noted from the suture line and a soft fluctuant swelling was felt in the region of lower flap. Bed side exploration of the wound was done under local anaesthesia maintaining all aseptic precautions and around 250 cc of blood clots mixed with fresh blood were evacuated from the lower flap region however no active bleeding could be identified (Fig 1). Tip of the axillary drain was found migrated to the chest wall at the site of hematoma. The drain was re-positioned in the adjoining axilla and compression dressing was applied. The patient was advised to restrict the shoulder exercises. No event of re-bleeding

was noted later and patient was discharged in satisfactory condition after removal of axillary drain on 10th post operative day.



Fig: Bedside exploration of wound and evacuation of hematoma

DISCUSSION

The modified radical mastectomy for carcinoma breast is associated with more complications compared to breast conserving surgery. Postoperative complications like bleeding leads to delay in starting adjuvant therapy, increases patient's anxiety as well as increases the cost of treatment^[4]. Postoperative bleeding is classified as primary, reactionary and secondary. Primary hemorrhage occurs during or immediately after the surgery and reactionary hemorrhage occurs within 24 hours of the surgery as a result of dislodgement of a clot or slippage of ligature. Secondary hemorrhage occurs 7-14 days after the surgery due to factors like wound sepsis or pressure necrosis from drain^[5]. In present case hematoma developed on 5th postoperative day and can't be categorized to secondary bleeding. Also, there was no evidence of wound sepsis noted at the time of wound exploration.

Most of the cases of bleeding after mastectomy, presents on the same day or on the next day of surgery and pectoralis major followed by axillary region are seen as the major source of bleeding^[6]. However, in the present case neither of the mentioned sites had any evidence of bleeding. Perforator branch of thoracoacromial artery is also reported as cause of bleeding and hematoma formation under the upper flap^[7]. In present case, hematoma was found under the lower flap and hence this cause was also ruled out. A study analyzing early post mastectomy

complications reported hematoma formation mostly at the time of drain removal on 5th or from 7th to 10th postoperative day. No specific cause of bleeding was pointed in the study but they attributed old age, obesity, large tumour size and higher nodal stage as the factors that contribute to the bleeding complications^[1]. Another factor that can increase the chances of hematoma formation is increased dead space after the surgery that decreases the tamponade effect and favors the collection of blood in the loose space^[8]. The poor surgical technique and improper hemostasis can also lead to hematoma formation. However it usually presents as primary hemorrhage and rarely presents 5-7 days after the surgery. Meticulous surgery in the bloodless oncological plane and confirming the hemostasis can help to overcome this complication^[9]. In present case, the hematoma formation underneath lower flap with adjoining migrated axillary drain suggest that the drain might have moved to the lower flap region due to vigorous shoulder exercises that might have eroded a subcutaneous vessel.

CONCLUSION

Hematoma formation due to flap erosion caused by the migration of axillary drain is an unusual complication following mastectomy and has not been reported in the available literature. It can be avoided by moderating the intensity of shoulder exercises and proper placement of drain in the axillary region. In case of hematoma formation, early exploration of wound, achieving hemostasis and re-position of the drain in axilla is recommended.

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