Modified Radical Mastectomy 145

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Indications

Invasive breast cancer with axillary lymph node metastasis

Essential Steps

1. Review patient information to ensure proper indications and laterality of operation.
2. Create an elliptical incision over the breast encompassing the nipple-areolar complex and biopsy scar.
3. Raise flaps in the avascular plane between the subcutaneous and breast tissues. Dissect:
   (a) Superiorly to the clavicle
   (b) Medially to the sternum
   (c) Inferiorly to the *superior aspect of the anterior rectus sheath/inframammary fold*
   (d) Laterally to the anterior border of the latissimus dorsi
4. Remove all the breast tissue, including the pectoralis fascial, from the chest wall. *If tumor extension is noted into the pectoralis muscle*, *remove the tumor en bloc with a surrounding disk of muscle*.
5. At the lateral border of the pectoralis major muscle, allow breast tissue to fall laterally. Incise the clavipectoral fascia.
6. Dissect between and under the pectoralis major and minor muscles, removing all fatty tissue but preserving the medial pectoral nerve.
7. Identify the axillary vein and clear it of fatty tissue.
8. *Ligate the first major branch of the axillary vein to the chest wall*.
9. Identify and preserve the thoracodorsal and long thoracic nerves.
10. Dissect and remove all the fatty contents of the axilla bounded by:
    (a) Axillary vein superiorly
    (b) Chest wall medially
    (c) Subscapularis muscle posteriorly
    (d) Latissimus dorsi laterally
11. Remove the specimen by dividing the lateral pedicle of subcutaneous fat.
12. Achieve hemostasis. Place closed suction drain(s). Close the wound.

Note These Variations

1. Skin-sparing mastectomy uses smaller, specially tailored incisions.
2. Sentinel node biopsy may be employed in patients with clinically negative nodes.
3. Immediate reconstruction with implants or autologous tissue.

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Complications

1. Recurrence
2. Seroma
3. Nerve injury
4. Skin slough
5. Lymphedema

Template Operative Dictation

Preoperative Diagnosis *Right/left* breast cancer

Procedure *Right/left* modified radical mastectomy

Postoperative Diagnosis Same

Indications This is a ___-year-old *male/female* found to have invasive *ductal/lobular/other* carcinoma of the breast with axillary nodal involvement. After discussing the risks, benefits, and alternatives to surgery, the patient elected to undergo modified radical mastectomy.

Description of Procedure The patient was brought to the operating room, and the site of surgery was confirmed. Time-outs were performed using both preinduction and pre-incision safety checklists to verify correct patient, procedure, site, and additional critical information prior to beginning the procedure. General anesthesia was induced. The breast, chest wall, neck, axilla, and upper arm were prepped and draped in the usual sterile fashion.

An oblique elliptical skin incision was made on the breast encompassing the nipple-areolar complex and the existing biopsy scar. Flaps were raised in the avascular plane between the subcutaneous tissue and breast tissue to the clavicle superiorly, sternum medially, inferiorly to the *superior aspect of the rectus sheath/inframammary fold*, and anterior aspect of the latissimus dorsi laterally. Hemostasis was achieved. Progressing from medial to lateral, the breast tissue with the underlying pectoralis fascia was dissected off the chest wall. *If indicated*: *The tumor was noted to extend directly into the pectoralis muscle*, *so this portion of the tumor and surrounding muscle was removed en bloc with the breast tissue*.

The clavipectoral fascia was incised, and the fatty tissue between and below the pectoralis major and minor muscles was excised. The pectoral muscles were retracted medially, and the medial pectoral neurovascular bundle was identified and preserved.

The axillary vein was then identified and cleared of overlying fatty tissue. *The first branch off the axillary vein was clamped*, *divided*, *and ligated with 2-0 silk ties*. The thoracodorsal nerve innervating the latissimus dorsi was identified and preserved. The long thoracic nerve was then identified along the edge of the chest wall and preserved. The remaining nodal tissue between these nerves was then carefully removed. The specimen, consisting of breast and attached nodal tissue, was excised by dividing the remaining lateral pedicle and sent to pathology. The wound was irrigated and hemostasis was achieved.

Choose One

If immediate reconstruction: *At this point*, *the plastic surgery team took over to perform the reconstruction. A separate operative note will be dictated for that portion of surgery*.

If no immediate reconstruction: *Closed suction drain*(*s*) *was/were brought into the operative field through separate stab incisions and sutured to the skin using 3-0 nylon suture. The subcutaneous tissue was closed using 3-0 Vicryl sutures followed by a running 4-0 Monocryl suture. The wound was dressed with Steri-Strips/Dermabond glue and bandages. At the end of the case*, *all needle and sponge counts were reported as correct*.

A debriefing checklist was completed to share information critical to postoperative care of the patient. General anesthesia was reversed, and the patient was extubated. There were no immediate complications noted, and the patient was taken to the recovery unit in stable condition.

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