
Curved Axillary Thoracotomy

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The curved muscle-sparing thoracotomy has the advantage of avoiding division of any major muscle, as well as achieving a good cosmetic result be-

cause it is hidden in the mid to anterior axillary line. This incision provides adequate exposure for any lobectomy or pneumonectomy. It is not appropriate for large posterior tumors or complex posterior resections involving chest wall, airway, or pulmonary arterial reconstruction because it does provide limited exposure of the posterior thoracic cavity.

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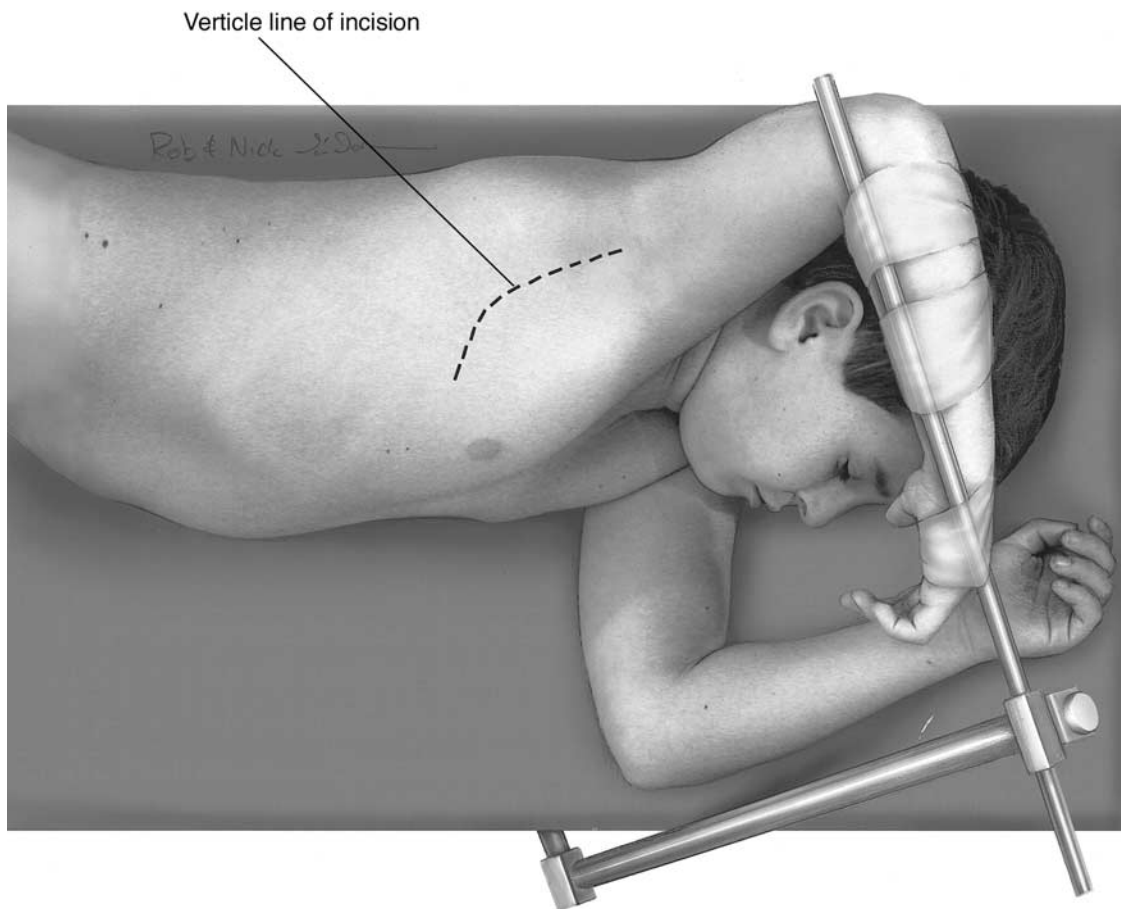
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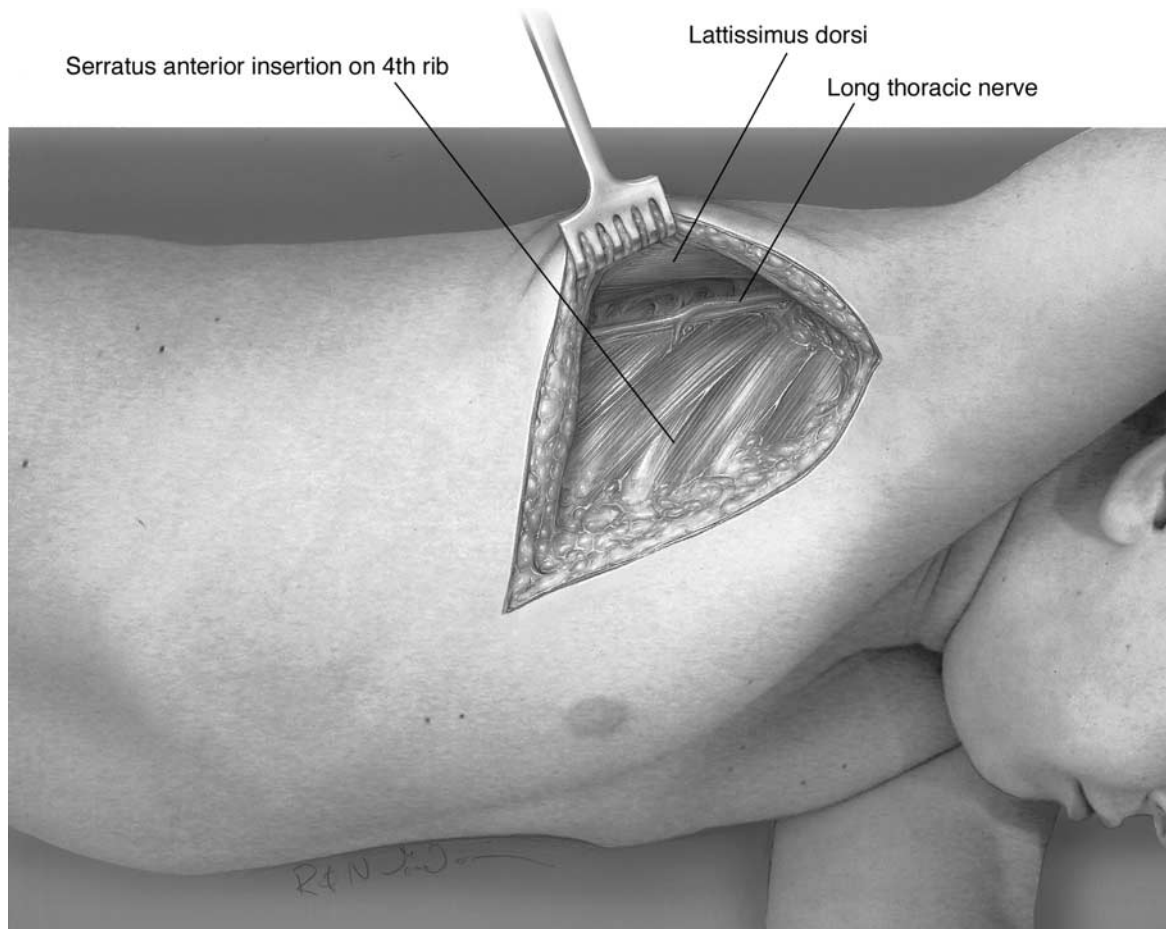
1522-2942/03/0803-0000\$30.00/0

doi:10.1053/S1522-9042(03)00039-6

SURGICAL TECHNIQUE



I The patient is intubated with a double lumen tube and placed in the lateral decubitus position. The arm is abducted at 110° to 120° and supported in a sling. The skin incision begins at the margin of the axillary hairline; runs inferiorly along the anterior border of the latissimus dorsi muscle; and then curves with the fourth or fifth interspace, terminating just inferolaterally to the breast. The incision is then carried down through the subcutaneous tissue to the anterior border of the latissimus dorsi muscle. Patient positioned for right thoracotomy. Vertical line of incision.



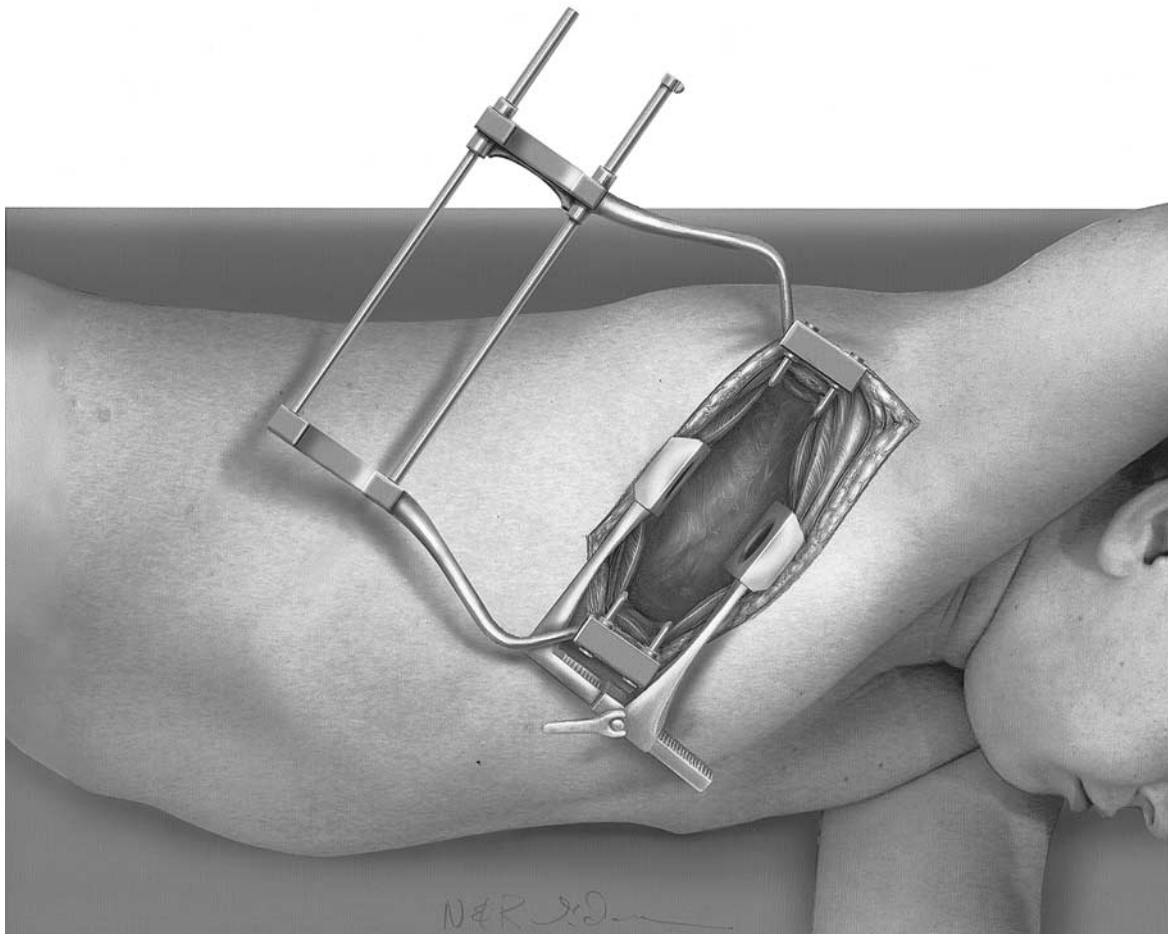
2 The latissimus muscle is then elevated posteriorly, taking care to stay on the muscle itself to avoid injury to the long thoracic nerve lying on the serratus muscle, just posterior to the anterior border of latissimus muscle. Injury to the long thoracic nerve above the fourth interspace will result in a winged scapula. Serratus anterior insertion on fourth rib. Latissimus dorsi. Long thoracic nerve.

Division of intercostal muscles

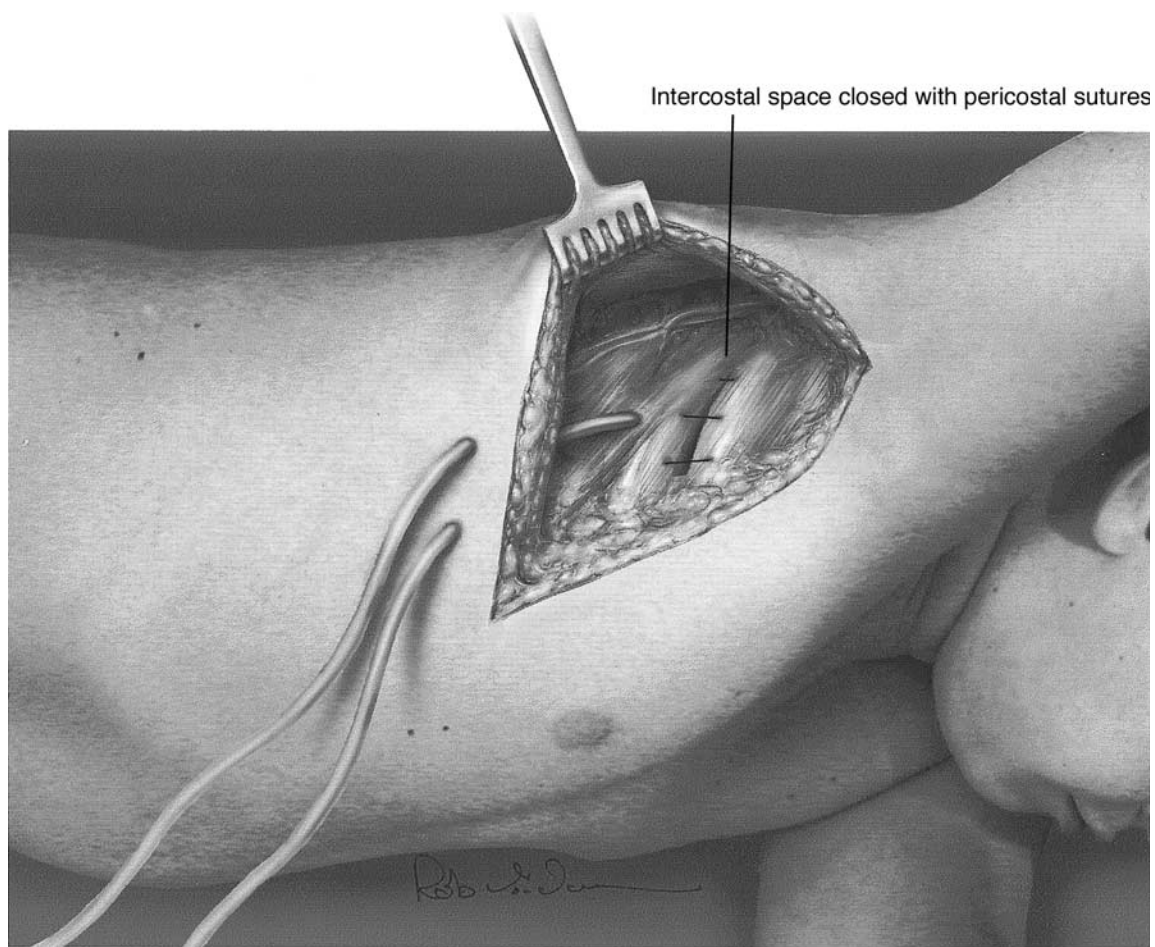


3 The latissimus muscle is then retracted posteriorly, and the serratus muscle is divided along the direction of its fibers. Care should be taken to avoid dividing the serratus too far posteriorly, thereby risking injury to the long thoracic nerve. Division of intercostal muscles.

Intercostal thoracotomy held open with rib spreaders and Balfour retractor



4 The most convenient interspace (usually the fourth) is selected to enter the chest. Once the chest has been entered, the intercostal muscles are divided as far anteriorly and posteriorly as possible. This procedure is important for gaining maximum exposure of the interspace while minimizing the chance of a rib fracture. Two chest retractors can be placed inside the chest, at right angles to one another, to hold the ribs and soft tissue out of the operative field. We usually use a rib spreader to separate the ribs and a Balfour retractor to hold the latissimus posteriorly. Intercostal thoracotomy held open with rib spreaders and Balfour retractor.



5 The wound is closed in a similar manner as posterolateral thoracotomy. Three or 4 pericostal sutures are used to close the interspace. The serratus muscle is reapproximated with a continuous suture. Subcutaneous tissue and skin closure complete the procedure. Intercostal space closed with pericostal sutures.