

A “Conservative” Method of thoracic wall dissection: a proposal for Teaching Human Anatomy

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SUMMARY

The common methods of dissection exposing the thoracic organs include crossing of the wall together with wide resection of its muscular planes. In order to preserve these structures, a little demolishing technique of the thoracic wall is proposed, entering the thoracic cavity without extensive resection of the pectoral muscles.

This method is based on the fact that these muscles rise up from the wall, like a bridge connecting the costal plane with the upper limb, and that the pectoralis major shows a segmental constitution. SUPERIOR LIMIT: Resect the sternal manubrium transversely between the 1st and the 2nd rib. The incision is prolonged along the 1st intercostal space, separating the first sterno-costal segment of the pectoralis major from the second one, and involving the intercostal muscles as far as the medial margin of the pectoralis minor. This muscle must be raised up, and the transverse resection continued below its medial margin latero-medially along the 1st intercostal space, to rejoin the cut performed before. Then, the incision of the 1st intercostal space is prolonged below the lateral margin of the pectoralis minor, which must be kept raised up, medio-laterally as far as the anterior axillary line. INFERIOR LIMIT: It corresponds to the inferior border of the thoracic cage, resected from the xiphoid process to the anterior axillary line, together with the sterno-costal insertions of the diaphragm. Then, an incision of the sterno-pericardial ligaments and a median sternotomy from the xiphoid process to the transverse resection of the manubrium should be performed. LATERAL LIMIT: From the point of crossing of the anterior axillary line with the inferior limit, resect the ribs from the 10th to the 2nd one. The lateral part of the pectoralis major must be raised up, so that the costal resection may be continued below it. Then, at the lateral extremity of the superior incision, the first and the second sternocostal segment of the pectoralis major must be divaricated, to resect the 2nd and the 3rd rib. It is helpful increasing the distance between pectoralis major and thoracic wall by adducing the arm on the chest. Finally, open the two halves of the thoracic wall, like shutters of a window rotating on the hinges, formed by the non-resected intercostal muscles and by the intercostal portions of the serratus anterior, along the anterior axillary line.