Medial pectoral pedicle is a reliable landmark for axillary lymph node dissection

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Summary  Background: The anatomical orientation of structures in the axilla has not been well studied, although it is essential for a neat and safe dissection. The objective of this study was to determine the relations between neurovascular structures in the axilla as they were encountered during axillary lymph node dissection (ALND) for breast cancer.

Methods: This was a prospective study of 29 consecutive ALNDs accompanying either mastectomy or wide local excision. The dissections were conducted in a stepwise manner and the orientation of the structures was determined as the dissections advanced from superficial to deeper planes.

Results: The medial pectoral pedicle was the most superficial neurovascular structure encountered during the dissections and was curled around the lateral border of the pectoralis minor muscle in most cases. The intercostobrachial nerve lay 1–2 cm behind and below, and the axillary vein was located 2–3 cm behind and above the pedicle. The long thoracic nerve was constantly found 2–3 cm behind the intercostobrachial nerve. The thoracodorsal nerve was always accompanied by a posterior tributary of the axillary vein.

Conclusion: Relations between neurovascular structures in the axilla are predictable. The medial pectoral pedicle, which is consistently found and superficially located, could be used as a landmark for ALND.

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