

CUTANEOUS AND SUBCUTANEOUS LYMPHATIC DRAINAGE OF THE BREAST

D. Pavlišta, O. Eliška

Department of Oncogynecology (DP), Clinic of Obstetrics and Gynecology of the 1st Medical Faculty of Charles University and General Hospital in Prague; Institute of Anatomy (OE) of the 1st Medical Faculty of Charles University in Prague, Czech Republic

ABSTRACT

The aim of this study was to topographically map the superficial lymphatic drainage of the breast. The study was performed on 24 female cadavers. Patent blue dye was administered intradermally and subcutaneously. After visualization and dissection of the lymphatics, a schematic record of their routes was made on a transparency folio of the breast map. Afterwards, a summation was performed of all schematic records, and a map of the lymphatic vessels of the breast was derived. The natural dominant drainage for the outflow of lymph from the superficial areas of the breast is to the axillary nodes. This pathway plays a primary role in the initial stages of breast cancer. This observation does not exclude other pathways of lymph drainage, which probably play a secondary role except in cases where flow is limited in the primary lymphatic pathway. Although each quadrant is dominantly drained by one or two of its own collectors, it is also interconnected via the subareolar plexus with the other quadrants of the breast, and lymph collectors of the upper medial quadrant pass to the lower medial quadrant and vice versa. Lymphatic collectors from the medial quadrants followed the medial, cranial and caudal margins of the breast and afterwards ran into the axilla. The common interconnections of the individual quadrants of the breast with one or two collectors, which circumscribe the breast, but run outside the subareolar plexus, further increase the risk of developing locoregional recurrences. In some cases, the marginal lymphatic collectors of the breast may even run beyond the anatomical boundaries of the breast—particularly apparent in the submammary region.