

# During the treatment of breast cancer, there is a risk of lymphoedema

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## LYMPHOEDEMA

The occurrence of lymphoedema after a range of therapies for operable breast cancer was investigated in 200 individuals. Lymphoedema was evaluated in two ways: subjective (patient and observer impressions) and objective (test results) (physical measurement). The most reliable method of measuring variations in size between the operated and normal arms was arm volume measurement 15 m above the lateral epicondyle [1]. Arm circumference measurements were off. Subjective lymphoedema was present in 14% of the participants, whereas objective lymphoedema (a difference in limb volume more than 200 ml) was found in 25.5%. The extent of axillary surgery (p 0.05) and axillary radiation (p 0.001) were independent risk factors for the development of subjective late lymphoedema. In individuals who have undergone entire axillary clearance, axillary radiation should be avoided.

Lymphoedema of the upper limb is one of the most distressing and uncomfortable consequences of breast cancer treatment, and it is very challenging for the surgeon. Furthermore, it has the potential to cause lymphangiosarcoma.

During the Halsted radical mastectomy period, the incidence of lymphoedema was reported to range between 6.7% and 62.5%. While lymphatic blockage due to axillary clearing is an apparent cause of lymphoedema, Brittain and Nelson believed that superadded infection was significant, whereas Hughes and Patel attributed axillary vein obstruction [2]. The risk of lymphoedema appears to have reduced with the adoption of more conservative methods to breast cancer therapy. Thus, the observed incidences are 15.4% after modified radical mastectomy, 2.1% and 3.1% after broad local excision plus complete axillary clearance and 2.3% after wide local excision plus radiotherapy.

Few breast cancer studies have addressed the topic of lymphoedema since Hughes and Patel's comprehensive analysis in 1966. Furthermore, because

there is no consensus on the definition of lymphoedema, it is impossible to draw significant inferences from the findings of this and other research.

We believed that arbitrary variations in limb size were less relevant than the patient's and observer's judgement of lymphoedema (subjective lymphoedema) [3]. At the same time, we recognised that objective measurement might provide a helpful way of correlating limb appearance with limb size for consistency across studies and serve as a baseline for future prospective evaluations. As a result, we evaluated 200 individuals who underwent breast cancer surgery with or without radiation [4]. The study's goals were to compare the incidence of lymphoedema as judged by subjective observation with objectively measured differences in arm circumference and volume; to identify independent risk factors for late lymphoedema; and to compare the incidence of lymphoedema after different breast cancer treatments.

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