

Research

Effectiveness of early physiotherapy to prevent lymphoedema after surgery for breast cancer: randomised, single blinded, clinical trial

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Objective To determine the effectiveness of early physiotherapy in reducing the risk of secondary lymphoedema after surgery for breast cancer.

Design Randomised, single blinded, clinical trial.

Setting University hospital in Alcalá de Henares, Madrid, Spain.

Participants 120 women who had breast surgery involving dissection of axillary lymph nodes between May 2005 and June 2007.

Intervention The early physiotherapy group was treated by a physiotherapist with a physiotherapy programme including manual lymph drainage, massage of scar tissue, and progressive active and action assisted shoulder exercises. This group also received an educational strategy. The control group received the educational strategy only.

Main outcome measure Incidence of clinically significant secondary lymphoedema (>2 cm increase in arm circumference measured at two adjacent points compared with the non-affected arm).

Results 116 women completed the one year follow-up. Of these, 18 developed secondary lymphoedema (16%): 14 in the control group (25%) and four in the intervention group (7%). The difference was significant ($P=0.01$); risk ratio 0.28 (95% confidence interval 0.10 to 0.79). A survival analysis showed a significant difference, with secondary lymphoedema being diagnosed four times earlier in the control group than in the intervention group (intervention/control, hazard ratio 0.26, 95% confidence interval 0.09 to 0.79).

Conclusion Early physiotherapy could be an effective intervention in the prevention of secondary lymphoedema in women for at least one year after surgery for breast cancer involving dissection of axillary lymph nodes.

Trial registration Current controlled trials ISRCTN95870846 [controlled-trials.com] .

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