

Breast Hypertrophy and outcome of Breast Reduction Surgery

Akademisk avhandling

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av

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Avhandlingen baseras på följande delarbeten

- I. Lewin R, Göransson M, Elander A, Thorarinsson A, Lundberg J, Lidén M. Risk factors for complications after breast reduction surgery. *J Plast Surg Hand Surg.* 2014; 48:10-14
- II. Lewin R, Elander A, Thorarinsson A, Kölby L, Sahlin P-E, Lundberg J, Panczel A, Lidén M. A Randomized Prospective Study of Prophylactic Cloxacillin in Breast Reduction Surgery. *Annals of Plastic Surgery* 2015; Jan; 74(1): 17-21
- III. Lewin R, Elander A, Lundberg J, Thorarinsson A, Claudelin M, Bladh H, Lidén M. Validation of the Breast Evaluation Questionnaire for women subjected to breast reduction surgery. Submitted 2016
- IV. Lewin R, Lidén M, Selvaggi G, Lundberg J, Thorarinsson A, Elander A. Prospective evaluation of health after breast-reduction surgery using Breast-Q, SF-36, BRSQ and modified BEQ. Manuscript.



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ABSTRACT

Aim: The overall aim of this thesis was to improve our knowledge of breast hypertrophy in women, its associated problems, and the outcome of breast reduction.

Patients and methods: **I.** Five hundred and twelve woman were studied retrospectively for prevalence of and risk factors for complications. **II.** The study included 325 women, either randomized to prophylactic antibiotics or not. **III.** The Breast Evaluation Questionnaire (BEQ) for women with breast hypertrophy and breast reduction was validated. Two hundred and twenty-five women who had had breast reduction surgery and 216 controls were included. **IV.** Three hundred and forty-eight women were evaluated for gain in health-related quality of life (HRQL) after breast reduction surgery in this prospective, longitudinal paired study. **Results:** **I.** A long suprasternal notch to nipple distance increased the risk of infection and necrosis of the nipple. High BMI increased the risk of wound infection. A larger weight of resection increased the risk of delayed wound healing and fat necrosis. Smokers have twice the risk of getting a postoperative infection and diabetics are at higher risk of nipple necrosis. **II.** The incidence of postoperative infections was not significantly different between the groups. **III.** The modified BEQ is valid and shows good reliability. **IV.** Breast hypertrophy is associated with low HRQL, and breast reduction surgery increases HRQL. **Conclusions:** **I.** Sternal notch to nipple distance, BMI, resection weight, diabetes mellitus, and smoking are independent risk factors for complications after breast reduction surgery. **II.** One prophylactic dose of 2 g intravenous Cloxacillin or 600 mg Clindamycin did not reduce the incidence of postoperative infections. **III.** The BEQ has proven to be valid and to have good stability after being modified (mBEQ), when used before and after breast reduction surgery. **IV.** Women with breast hypertrophy have reduced quality of life and the HRQL is strongly increased or normalized after breast reduction surgery when SF-36, mBEQ, BRSQ, and BREAST-Q are analyzed. Those with a higher body mass index, a longer sternal notch to nipple distance, a larger preoperative breast volume, or large volume of breast resection enjoy gains in health-related quality of life that are similar to, although probably not greater than, other women.

Keywords: Breast, hypertrophy, breast reduction, mammoplasty, complication, prophylactic, antibiotic, infection, validation, reliability, quality of life, questionnaire

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