

## World Congress on Breast Cancer

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Breast reconstruction with own tissue after mastectomy. A new microneurovasculartechnique with muscle sparing TRAM flap, by authors Helena K. Puonti, MD, Satu K. Jääskeläinen MD, PhD, Helena K. Hallikainen MD and Taina A. Partanen MD, PhD.

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In previous studies, it has been shown that a breast reconstruction with own tissue gives the best possible result in the long run. Furthermore, sensibility following innervated free TRAM flap for breast reconstruction improves patient-rated quality of life. In this study, we were looking for the most efficient neurorraphy technique for sensory recovery in microneurovascular muscle sparing TRAM (ms-TRAM) reconstructions after a mastectomy for breast cancer patients. All together ninety six breast cancer patients undergoing breast reconstruction by free ms-TRAM were included in the study. Both sensibility of the reconstructed breast and sensibility of abdominal skin were evaluated by neurophysiological examinations and patient questionnaire at baseline before ms-TRAM reconstruction and after 12 and 24 months postoperatively. Quantitative sensory testing (QST) was performed for tactile, vibratory and thermal sensory modalities, sharp-blunt discrimination, and spatial acuity using two-point discrimination. Results were analyzed with SPSS, and Mann-Whitney test was used. In our pilot retrospective study, twenty patients, who underwent unilateral neurorraphy, showed significantly better results when compared with the control group of twenty patients without neurorraphy. Prospective study was started in 2006. Neurorraphy technique (unilateral, bilateral or no-neurorraphy) did not compromise abdominal skin sensibility when it was compared between different groups and no major problems or pain could be detected in donor area. The sensory recovery of the reconstructed breast was significantly better in neurorraphy. Brospective study groups comparing with no neuro group. Our interest in the future is to investigate the results for bilateral neurorraphy.

## **Biography**

Plastic surgeon Helena K. Puonti has worked as microsurgeon since 1991. She has dedicated her work history for the development of surgical breast cancer treatment. She performed the first microneurovascular breast reconstruction with free ms-TRAM flap in 2001, and is preparing her thesis study from it. She has worked as the head of the plastic surgery department at Savonlinna Central Hospital since 1987, and fifteen years in her private own clinic Helena performing all kind of reconstructive plastic surgery. Cancer Society of Finland selected her for the oncologist of the year 2003 in Finland. Many plastic surgeons have started their career in her guidance and she gives yearly many lectures about the oncological surgery.

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