

## **Do we need to consider damage to myofascial structures in managing painful dysfunction following treatment for breast cancer?**

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**BACKGROUND** Breast cancer is the most common malignancy in women. Improved therapy yields the largest group of cancer survivors in the US, making quality of life after breast cancer an important issue [1]. Treatment is often followed by a decline in upper body function with morbidity of the shoulder as a well known phenomenon [1, 2]. Although breast and axillary scarring is recognized as contributing to limited shoulder movements [2], compromised tissue gliding and shearing in a wider range of supporting fascial and connective tissue structures are under-recognized. To gain a more complete picture of soft tissue patterns in patients with upper limb dysfunction after modified radical mastectomy (MRM), restricted soft tissue gliding was assessed and mapped during initial evaluation of referred patients. This paper reports on the mapped patterns from the clinical records of patients.

**METHODS** Tissue gliding was manually assessed by applying gentle shearing stretch to the skin over the neck, chest wall, abdomen, axilla and upper arm. Scarring, areas of tissue tightness and directions of tissue restriction were then mapped on upper body charts.

**RESULTS** Twenty shoulder girdles were evaluated in seventeen patients. All patients had combinations of restrictive tissue gliding, restricted shoulder movements and changes in scapulohumeral rhythm when moving the arm. Three dominant areas of restriction were identified - surgical scarring on the chest wall (14 patients), axillary tightness radiating into the medial upper arm (15 patients) and lateral chest wall (11 patients), and finally tissue tightness on the posterior axillary border over the teres major and infraspinatus muscles (10 patients).

**DISCUSSION** Breast cancer treatment results in a range of supporting connective tissues losing its shearing and gliding ability. In this limited sample, mapped restrictive tissue gliding clearly show wider than reported restrictions. The wider extent of limitation in tissue gliding was somewhat unexpected. This pattern needs further research and investigation.

Shoulder-arm morbidity is a complex syndrome which cannot be adequately described by single symptoms [2], or rely on single-therapy treatment strategies for optimal results. In our practice, mobilization of all tissue gliding restrictions resulted in improved upper limb function, reduced pain and increased exercise tolerance. We therefore propose that the entire upper quarter be assessed and treated for tissue gliding restrictions as part of the long term rehabilitation plan for patients after treatment for breast cancer.

### **REFERENCES.**

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