



Evaluation of the use of Deep Oscillation Therapy (DOT) in the management of breast cancer related breast oedema in GM

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Background and aims:

- Breast oedema is historically difficult to treat, under reported and diagnosed. Verbelen et al (2021) identify that breast oedema is far less explored in the literature compared to lymphoedema of the arm, although is gaining relevance due to increase in patients receiving breast conserving surgery with adjuvant radiotherapy
- Delay et al (2008) characterises breast oedema as; *thickening of the skin, visible oedema, asymmetry, peau d'orange, heaviness and pain*
- Patient quote: **“Breast oedema is very painful and uncomfortable and the orange peel texture of the breast is worrying. There is no relief from this discomfort and it affects your daily living, restricts things you do, disturbs sleep and comfort even in bed. I couldn't even cope with a hug”**
- Clinically treatment modalities include: Manual lymphatic Drainage (MLD) compression bras, Kinesiology tape and lymph pad
- Our Service expansion led to exposure and training utilising Deep Oscillation Therapy and following a successful bid for a Macmillan grant a machine was purchased

What is deep oscillation therapy?

- A therapeutically beneficial electrostatic field is created in the tissue segment undergoing treatment
 - As the vinyl gloved hands glide over tissue, layers are attracted and released up to 250 per second (250 Hz)
 - Pain is significantly reduced and inflammation suppressed
 - Where present, fibrosis is tackled effectively, limbs feel lighter and mobility is enhanced
- www.PhysioPod.co.uk

Method:

- A service evaluation conducted at Salford Care Organisation, patients were identified by clinicians in the Specialist Breast Care Physiotherapy Service
- All patients had a previous diagnosis of breast cancer and had been referred for breast oedema management

Results:

- Of the 22 patients with breast oedema treated during a 12 month period of Feb 23-24 all underwent axillary surgery – 10 SNB 12 ANC
- 8 had post op seromas
- All had radiotherapy
- All presented with peau d'orange
- Average number of treatment session was 9
- 14 had complete resolution of swelling, 5 had small residual area in inner quadrant and 3 are having ongoing treatment

Conclusion:

- DOT therapy is a useful tool in the management and reduction of breast oedema in patients with breast cancer related swelling, Jahr et al 2008
- Patient quote: **‘this treatment is soothing and improving the problem is truly amazing and when I have had my treatment I feel on top of the world. The treatment is a pure tonic for me and is helping me feel motivated and positive’.**



References:

1. Verbelen et al, 2021 Breast edema, from diagnosis to treatment: state of the art *Archives of physiotherapy* 11:8
2. Delay et al, 2008 Post-treatment sequelae after breast cancer conservative surgery *Ann Chir Plast Esthet* 53(2): 135-52
3. Jahr et al, 2008 Effect of treatment with low-intensity and extremely low-frequency electrostatic fields (Deep Oscillation) on breast tissue and pain in patients with secondary breast lymphoedema *Journal of rehabilitation medicine* 40:8