COMPRESSION THERAPY IN THE ABSENCE OF AN ABPI | A CASE STUDY

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Introduction

Assessing the Ankle Brachial Pressure Index (ABPI) before applying compression helps healthcare providers determine the patient's vascular status. This helps ensure compression therapy is safe and effective without compromising the arterial circulation. However, this may not always be possible or unreliable due to clinical complexities such as chronic oedema. This poster presentation details the management of a patient who developed bilateral leg ulcers and had been self-managing for 2 years prior to presenting to general practice. This patient had a history of poorly controlled type 2 diabetes and lymphoedema which had been previously treated by the lymphoedema service and managed through RAL Class 3 (36-46mmHg) toe to thigh compression hosiery. This patient was a lorry driver, leading to long periods of immobility, so was not able to regularly attend the surgery for the practice nurses to dress his wounds. This patient's wounds had been slowly deteriorating with increasing amounts of exudate, pain, malodour and extensive devitalised tissue across the wound bed (Figure 1).

Method

Completing an Ankle Brachial Pressure Index (ABPI) in the surgery would not have been reliable due to the oedema in his legs and the pain from his wound, therefore a referral to vascular studies was requested. Despite an ABPI being unobtainable for the patient's left leg, a duplex scan showed good arterial wave forms in both lower limbs and the ABPI for the right leg was 1.3. Due to the chronicity of wound despite being treated with RAL Class 3 hosiery, the clinician was guided by local policy to refer to Vascular studies for a vascular consultation. This was mainly the result of tissue viability advising against the previous vascular studies advice to implement compression therapy, as an ABPI was unobtainable for the left leg. As patient care is guided by the Tissue Viability service, the team felt it was inappropriate putting the patient into compression without an actual review/assessment by a vascular nurse/consultant. However, the referral was declined as this gentleman's venous duplex scan showed he had normal arterial signals in his foot and recommended he should be in compression.

The local clinical advisor from a medical device manufacturer* was contacted for advice. This led to the company* sharing the position paper by the British Lymphology Society (BLS 2018) **'Position Paper for Ankle Brachial Pressure Index (ABPI) Informing decision making prior to the application of compression therapy'** which gives clinical guidance regarding lymphoedema, key principles for practice and how to undertake a full vascular assessment for those with lower limb lymphoedema (see discussion).

Reference: British Lymphology Society, (2018) Position Paper For Ankle Brachial Pressure Index (ABPI). Informing Decision Making Prior to the Application of Compression Therapy [online]. [Accessed 13th March 2024].

Week 1 of Treatment

Week 9 of Treatment: Wound healed

Discussion

Lymphoedema primarily involves swelling due to lymphatic system dysfunction, rather than arterial circulation issues. However, while the ABPI is not always required for lymphoedema management, it is essential to use clinical judgement, multi-disciplinary team input and to consider individual patient factors before initiating compression therapy. However, the "Position Paper for Ankle Brachial Pressure Index (ABPI) Informing decision making prior to the application of compression therapy" makes two supportive references in relation to ABPI's and lymphoedema:

- **Routine ABPI measurements for patients who present with lymphoedema are not required in the absence of significant cardiovascular risk factors and clinical signs or symptoms of PAD (Peripheral Arterial Disease), provided the vascular status has been thoroughly assessed. If there are concerns in terms of reduced arterial flow, a referral for further vascular assessment and possible intervention should be pursued.**

- **Documentation and effective communication must be provided to all health care professionals involved in the ongoing management of the patient with Lymphoedema: which demonstrates the clinical assessment and rationale for not completing an ABPI**

Results

Following extensive discussion within the multi-disciplinary team and in line with appendix 1 of the BLS position document, it was agreed the best option for this patient was an adjustable compression wrap**** due to having no clinical signs of peripheral arterial disease. This also involved obtaining the patient's consent knowing all the benefits alongside the signs and symptoms of associated risks and who to contact if any concerns. Although a short stretch cohesive bandage would have been the preferred choice to reduce the oedema, it would require him to come to the surgery more often which the patient could not commit to due to work. A monofilament fibre debridement pad** and Superabsorbent Wound Dressing*** Adjustable Compression Wrap System**** were provided to enable him to self-manage his wounds at home in-between weekly clinic reviews. He was also supported and educated how to self-care, ensuring he appropriately used the monofilament fibre debridement pad** at every dressing change and changed the superabsorbent pad*** as often as needed. A plan of care was provided alongside the consent form to ensure correct management and treatment continuity. He was seen weekly for reassessment of the wounds and his general medical health.

Not only did the patient's wounds heal within 9 weeks (Figure 2), they were able to lose 5kg in weight from frequent nurse encouragement and praise, thus also improving his diabetic control and his psychological well-being.

Conclusion

Challenging ritualistic and entrenched practice and **'BEING BOLD'** in decision making isn't always easy. However, utilising evidenced based best practice alongside a wider Multi-Disciplinary Team including commercial product specialists is essential to achieve safe, efficient and effective care.

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* L&R Medical UK **Debrisoft® monofilament fibre debridement pad *** Vliwasorb® Pro Superabsorbent wound dressing ****ReadyWrap® Adjustable Compression Wrap

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