Science and Clinical Practice: Supporting patient care for leg ulcers

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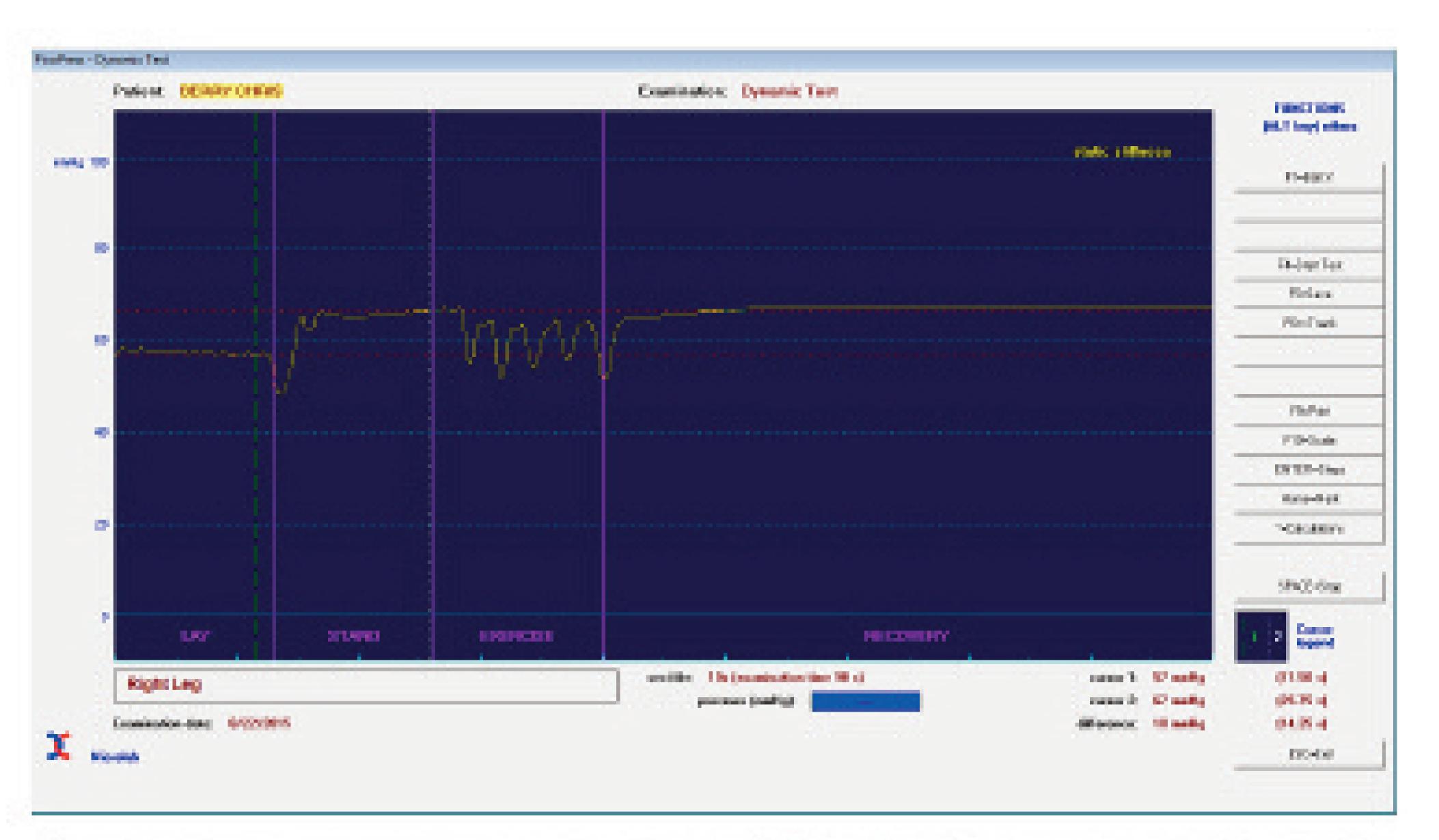
Aim

- Research supports use of compression for the management of venous leg ulcers (VLU)
- Recent studies have demonstrated that both interface pressure AND static stiffness of the compression product define the function of the bandage system
- Currently no sub-bandage pressure
 measurements have been documented
 to evaluate the specifics compression
 profile of the multi-component
 compression system currently taught to
 majority of certified lymphedema
 therapist in the USA



Method

- Bandage system utilized = traditional multi-layer lymphedema system
 - open cell, rolled foam
 - 4 short stretch bandages*
 different widths (6cm, 8cm, 10cm, 12cm)
- Validated tool used to measure interface pressure and static stiffness
- Measurement taken in supine and standing







Results

- Under controlled study setting,
 - single bandager
 - healthy volunteers
- Mean Interface Pressure = 53.6mmHg
 - Range = 50 to 59
 - Strong Compression (40 to 60mmHg)
- Mean Static Stiffness = 10.1
 - Range = 9 to 11
- Sub bandage pressure measurements demonstrated Static Stiffness Indices (SSI) with the system were within values recommended by international groups

Conclusion

- Other studies have examined this science and pheblological impact
 - Mosti et al. found that inelastic bandages with higher working and lower pressure produces better venous return and were more tolerable to patients compared to elastic systems
- Multi-component lymphedema compression bandage evaluated showed good short stretch properties with standing and resting pressures that are both effective and tolerable when applied in the clinical situation
- ✓ This research acknowledges the need for further testing of this bandage system on individuals with lymphedema as tissue density and size have been shown to have impact on effectiveness of bandage systems
- ✓ More science is required to match clinical presentations with appropriate compression



^{*}Rosidal K short stretch compression bandage Lohmann & Rauscher GmbH & Co KG