

# USABILITY, PATIENT SATISFACTION AND INTERFACE PRESSURE OF A NEW COMPRESSION SYSTEM\*

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## Introduction :

Multilayer, multicomponent bandages are considered the first choice treatment for venous leg ulcer (VLU) treatment. Usability, patient satisfaction and interface pressure of a new two components latex free compression device (TCS) were assessed.

## Methods :

In 20 patients affected by VLU, TCS was applied for 2 weeks with a weekly interval change. The first component of the compression system\*, a short-stretch bandage with padding properties, was applied with light stretch in a spiral way overlapped by 50%. The second component, a short stretch cohesive bandage, was applied with full stretch in a figure of eight way.

## Results :

TCS\* showed good results in the general assessment (slippage, rolling, loss of sensitivity, feeling of tightness, heat, itching) rated nothing to low; technical assessment (easy to use, ankle movement sufficient, thin without problems for shoes, comfortable) rated excellent to good; quality of life rated as very good. The mean interface pressure (IP) of TCS\* after bandage application was 60 mmHg in supine and 79,5 mmHg in standing position. After 7 days, before TCS removal, the mean IP was 32 mmHg in supine and 49 mmHg in standing position. The Static Stiffness Index was 19,5 after bandage application and 17 after 7 days in the range of stiff bandages.

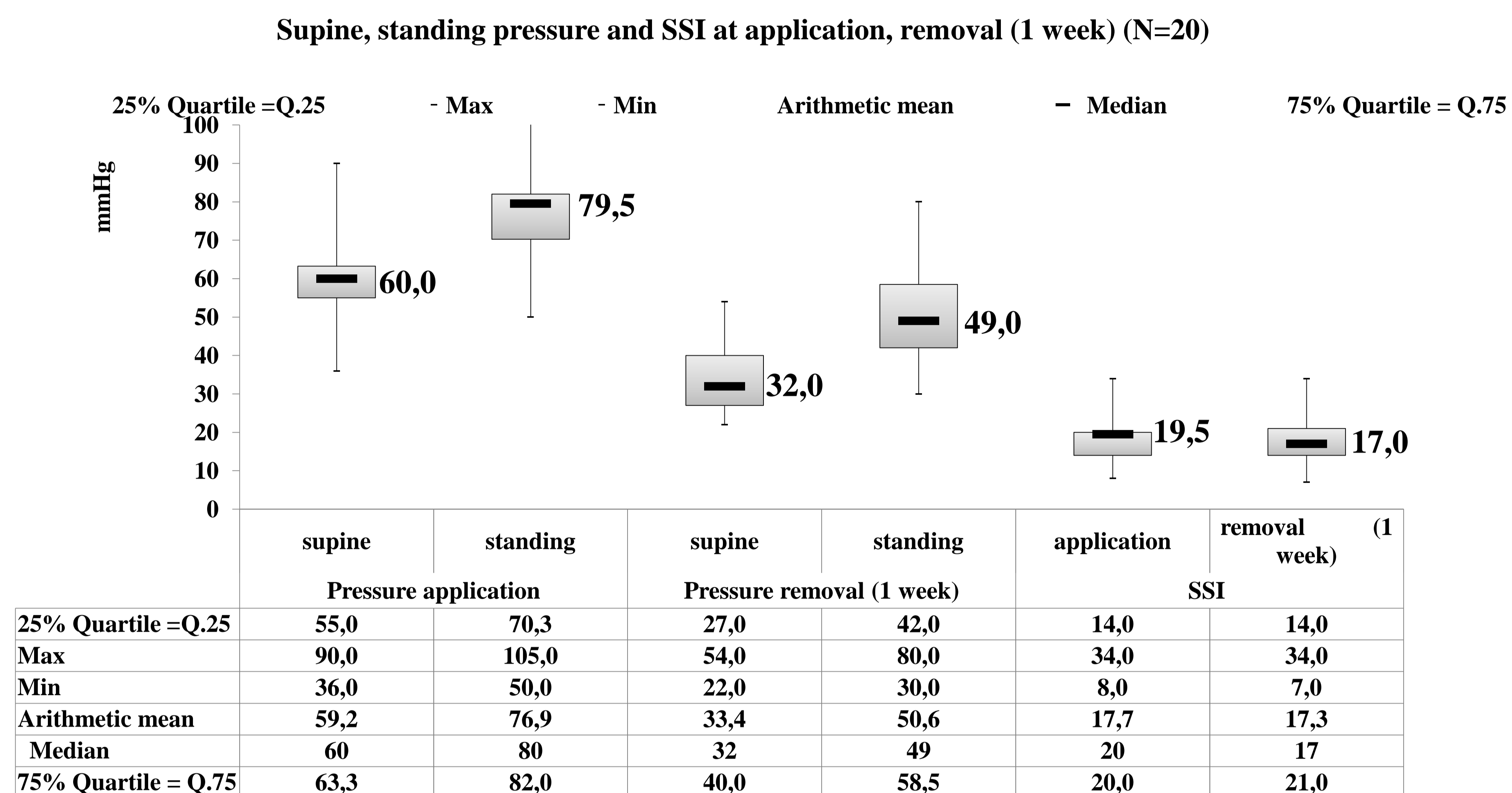


Fig 1: Subpressure bandage measurement (PicoPress, b1-position) when using the TCS compression system applied in a figure of eight (N = 20).

## Conclusion :

The new TCS\* showed to exert a very strong pressure with high stiffness and to be, simultaneously, comfortable, well tolerated, thin enough to avoid problems with the normal shoes. These characteristics suggest the new compression device could be very effective in VLU treatment.

## Case report:

### Anamnesis:

61 years old, female, with a deep venous insufficiency (post-thrombotic syndrome); suffering for this ulcer since 8 months. No other major problems.



Fig 1: first visit (26.09.11)



Fig 2: after 7 days (03.10.11)



Fig 3: Visit 10.10.11



Fig 4: Visit 08.11.11



Fig 5: healed after 50 days (14.11.11)

### Results:

Improvement of quality of life, no adverse effects, very good tolerability (in general and for the skin), very comfortable, easy to use, thin enough to avoid any problems with shoes.