

The effects of compression treatment on quality of life in patients with venous ulceration

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Background

- Leg ulceration is a common health care problem affecting 1 to 2 % of the population during lifetime
- Increasing evidence of concurrent co-morbidities and complexity
- Western demographic changes : increasing age, obesity and reduced mobility
- Studies have shown that leg ulceration impacts negatively on quality of life compared to age sex matched populations
- Many different generic and disease specific tools are used
- Quality of life is rarely a primary outcome measure



Methodological issues of QOL assessment

- Generic versus disease specific tools
- Generic tools may lack sensitivity to answer important issues
- Ceiling and floor effect (inability to track changes)
- Disease specific tools cannot be applied to other populations
- Different methods of completion and time points
- Short duration follow up
- Loss of improvement in QOL over time
- Inability to identify factors not associated with leg ulceration



Search strategy (quantitative and qualitative)

➤ Databases

- Medline, (1948 to March 2014)
- EBSCO Cinahl, EMBASE (1982 to March 2014)

➤ **Search terms** : leg ulcer, leg ulceration, venous ulcer ,venous ulceration, compression therapy, compression bandaging, compression hosiery, compression device, quality of life assessment, quality of life measurement, generic, disease specific tools

➤ Endnote reference manager

➤ Papers selected on agreed criteria

➤ Predefined data extraction tool

Measurement tools used in the study trials

- QL Index (G)
- Medical Outcomes Study (MOS) (G)
- Geriatric Depression Scale (G)
- SF 12 (G)
- Charing Cross Venous Ulcer Questionnaire (S)
- SF 36 (G)
- Cardiff Wound Impact Schedule (S)
- Chronic Venous Insufficiency Questionnaire (S)
- EuroQol (G)
- Hyland leg and foot ulcer questionnaire (S)
- Nottingham Health Profile (G)
- Symptom Rating Test (G)
- Tubingen Questionnaire (unclear)

Results

- 10 quantitative studies
- 9 RCT's
- 1 Intervention study
- 4 qualitative studies
- 5 reviews of studies



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Main study findings (1)

Quality of life improvement is associated with ulcer healing

Depression is independently associated with ulcer healing and is a risk factor for delayed ulcer healing

Compression bandaging significantly reduces pain in the majority of studies ($p < 0.0001$)





Main study findings (2)

Quality of life does not significantly improve with dressings only (no compression)

Emotional ,mental, and mobility aspects of QOL improve in some studies

Social isolation does not improve with ulcer healing

Multi layer bandages had a trend towards improved quality of life compared to single layer systems and hosiery





Main study findings (3)

Quality of life improves in healed patients more significantly than those who do not heal

Reduction in pain associated with use of high compression and ulcer healing

Quality of life changes occur most significantly at the time of healing

Long term quality of life changes may not be preserved longitudinally



Findings from reviews

- **Heterogeneity makes it difficult to draw conclusions between studies**
- **Use of different compression systems applied in different ways confounds conclusions**
- **Leg ulceration has an impact on quality of life**
- **Advantages and disadvantages of using generic and disease specific tools**

Ways to improve QOL assessment

- International agreement of appropriate tools
- Agreement on methods of use and schedule of assessment
- Definitions of populations being studied
- Previous /current use of compression
- Recognition of other psychosocial issues such as concordance, social support



Thank You