Background: Pruritus and pain due to scarring are estimated to affect 87% of the adult burn population. Pain and paresthesia in burn patients in the aftercare setting are poorly documented. Besides the conventional physiotherapy, new methods are developed to influence these impairments.

Objective: The main objective of this study is to investigate the effect of PRUS® depressomassage on pain, pruritus and Pressure Perception Threshold (PPT) in burn scars.

Methods: Pain and pruritus were examined with the Patient and Observer Scar Assessment Scale. Cutaneous sensibility was measured with the Semmes Weinstein® aesthesiometer to determine PPT.

33 burn patients were treated with PRUS® depressomassage (test group) and 15 burn patients were treated with conventional physiotherapy (control group).

Both groups were comparable at baseline on several clinical factors. Data were registered at baseline, after one, three and six months, and again after one year.

Results: The within group analysis showed a significant (p=.028) reduction of pain (33%) in the test group after one year compared to baseline. The control group showed no significant changes in pain.

In the test group pruritus diminished (26%) significantly (p=.011) after one year compared to baseline. The control group first showed a significant decrease of pruritus at six months but this was not confirmed after one year.

In the test group the PPT improved (50%) significantly after one year compared to baseline (p=.000). The PPT of the control group showed no significant changes after one year compared to baseline.

Results of the between group analysis revealed no significant differences between the test group and the control group.

Conclusion: In conclusion the PRUS® depressomassage has a positive effect on pain, pruritus and PPT in burn scars.