i-sock and TENS provide good pain relief in painful diabetic neuropathy. M. Slak¹, V. Urbancic-Rovan^{1, 2}

¹University Medical Centre, Dept. Od Endocrinology, Ljubljana, Slovenia ²University of Ljubljana, Faculty of Medicine, Ljubljana, Slovenia.

Background and aims. Up to 50% of patients with diabetes and distal symmetric polyneuropathy report pain symptoms of varying severity. Chronic neuropathic pain has a significant negative impact on the quality of life. The choice of treatment depends on many factors - patient's age, comorbidities, lifestyle, safety issues. Transcutaneous stimulation with low-frequency electrical current (TENS) is widely used for symptomatic treatment of neuropathic pain. Recently, socks made from special conductive fabric which allows stimulation from the TENS unit throughout the foot (isock) became available. We sought to investigate whether they provide good pain relief in painful diabetic neuropathy. Patients and methods. 9 patients (7 women, 2 men, average age 67.3 years) with painful neuropathy (score by Pain Detect Questionnaire 18 or more) were included. The patients received i-socks + TENS sets and were instructed about the use. They wore the socks at least one hour twice a day (max 4 hours a day). Pain Detect questionnaire was completed at baseline and after 3 weeks of i-sock + TENS use.

Results. Average pain detect score at baseline was 26.4 points (21-36) and after 3 weeks 11.9 (14-18). The pain detect score decreased by 11.9 on average (7-18). No adverse effects were observed and the patients were very satisfied with the treatment.

Conclusion. Our preliminary results indicate that i-sock and TENS can provide good pain relief in patients with painful diabetic neuropathy. The results need further confirmation on a larger group of patients.