EVALUATION OF EXTRACORPOREAL SHOCK WAVE THERAPY IN TREATMENT OF FOOT ULCERS IN DIABETES MELLITUS

Principal worker
MAJ L PRAVEEN KUMAR

Unit
AFMC Pune

OBJECTIVES

To evaluate the healing rates of neuropathic diabetic foot ulcers during a 20 week period in patients treated with ESWT compared with standard therapy of debridement and saline dressings.

METHODOLOGY

The study population of 40 patients was randomized into two groups. Group 1 receiving standard care and group 2 receiving additional shock wave therapy every 72 hours with 100 pulses/cm² of wound delivered at a flux density of 0.03mJ/mm². The end points of the study were complete healing of the ulcer and the time taken for complete ulcer healing.

RESULTS

At the end of 6 weeks 01 (5%) patient in group 1 showed an increase in the ulcer area and 01 (5%) had no change in the size. However, the rest of 18 (90%) patients showed some reduction in the ulcer area. However in group 2, 19 (95%) showed a reduction in ulcer size and 01 (5%) showed no change in the area of the ulcer. At 12 week follow up in group 1: 01 (5%) was lost to follow up, 01 (5%) showed no change, 02 (10%) showed increase in ulcer area and 16 (80%) showed reduction in ulcer size. In group 2: 01 (5%) showed an increase in ulcer size and 19 (95%) showed reduction in ulcer area. At 20 week follow up: Group 1: 04 (20%) patients had to undergo amputation and 14 (70%) showed a reduction in the size. In group 2: 2 (10%) were lost to follow up and 1 (5%) had to undergo amputation. 17 (85%) showed a reduction in ulcer area.

CONCLUSION

ESWT is an effective tool in management of non healing ulcers as healing occurs faster compared to daily dressings and can be employed as an office procedure with no significant side effects.