

Foot protection in bed in patients with diabetic pressure ulcers and serious comorbidity.

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Background and aim: Diabetic patients with pressure ulcers especially on the hindfoot or malleoles, often in the form of bedsores require effective off-loading also in bed, possibly in wheelchair as a supplement to conventional measures. The aim of this study was to present and evaluate a foot-protection device supplied from our outpatient foot clinic. **Methods and material:** A retrospective study was undertaken for the period 1. September 2011 through 31. August 2012. All information was obtained from the electronic patient record system. Thirty-two patients (37 ulcers) got foot protector for use in bed and/or wheelchair. Twenty-one patients were men, 11 were women, median age 66,8 years (35-88 years), 53% had type 1 diabetes, 41% had type 2 diabetes. Mean duration of diabetes was 31,9 years (2-73 years). HbA1c was median 67,3 mmol/mol (43-98 mmol/mol). Ten (31%) patients were smokers. The patients had severe comorbidity and seven (22%) had undergone a contralateral major amputation. Fourteen (44%) developed the ulcer during a hospital admission or in bed at home, 5 (16%) patients had the ulcer from shoes, in 12 (41%) patients the cause was unclear, 1 (3%) patient had pressure ulcer from the wheelchair. Twenty (62%) had a vibrations sensation >50 volt. 19 (59%) patients had no palpable foot pulses and had median toe pressure of 44 mmHg (10-81 mmHg). Localization of the ulcers was: 26 on the heel, 7 on the malleoles, 3 on the lateral side of the foot and 1 on the lateral side of the 5. toe. The ulcers were classified according to the University of Texas wound classification system: 6 patients had stage 1A: 15 1B, 1 1C, 2 1D, 3 2B, 4 2D, 5 3B and 1 had stage 3D. Twenty-eight (87%) patients had therapeutic sandals or removable cast including individually made insoles, 3 (9%) patients used their own shoes. Seven (22%) used a wheelchair. **Results:** Twenty (62%) patients healed their foot ulcers within a median time of 16 weeks (2-40 weeks); At present 4 (13%) patients still have foot ulcers, 3 (9%) have undergone major amputation and 5 (16%) patients have died with a foot ulcer. **Conclusion:** The heel protector is a useful device for avoiding pressure to exposed wounds during bed rest allowing acceptable healing results and avoiding leg amputation in most of these cases. The device is reasonably cheap (73 euro), easy to handle and it keeps stable position during patients movements. We need a controlled study, but offer this satisfactory device for the time being. It is also supplied as a prophylactic measure against bed sores in fragile patients.