A comparison of efficacy of topical use of phenytoin and vaseline gauze dressing with vaseline gauze dressing alone in healing of diabetic foot ulcers

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Abstract

Objective: To compare efficacy of topical use of Phenytoin and Vaseline Gauze dressing with Vaseline Gauze dressing alone in healing of diabetic foot ulcers.

Methodology: This randomized controlled trial was carried out in Surgical unit I of Benazir Bhutto Hospital from January to June 2013. Study included 60 diabetic patients with Wagner grade 1 & 2 ulcers on foot for more than 04 weeks with adequate control of diabetes. Patients with history of hepatic and renal diseases; on steroid use; or with impalpable foot arteries; were excluded. Thirty each were randomized to phenytoin and vaseline gauze dressing and vaseline gauze alone groups, respectively. At baseline and after 08 weeks, area of wound was measured using graph paper tracings and healing percentage was calculated.

Results: Mean age of the sample was 53.83±6.66 years. Thirty six (60%) were males. Twenty five (41.67%) patients had Wagner grade 1 and 35 (58.33%) had grade 2 foot ulcers. Age, gender distribution and severity of foot ulcers according to Wagner grades were similar between two groups. In phenytoin & Vaseline group, the mean baseline ulcer area decreased from 1310±489.2 mm$^2$ to 492.53±460.9 mm$^2$ at 8-weeks. In vaseline alone group, the mean baseline ulcer area decreased from 1107.53±486.58 mm$^2$ to 662.63±497.8 mm$^2$. In phenytoin & vaseline group, the treatment was effective in 21 (70%) patients, whereas in vaseline alone group, the treatment was effective in 13 (43.3%) patients; p= 0.037.

Conclusion: Phenytoin and vaseline dressings were significantly more effective as compared to vaseline alone dressings.
CONCLUSIONS: As compared with vaseline gauze, calcium alginate appears to be more appropriate for topical treatment of diabetic foot lesions in terms of both healing and tolerance. Authors: J D Lalau; R Bresson; P Charpentier; V Coliche; S Ether; G Ha Van; G Magalon; J Martini; Y Moreau; S Pradines; F Rigal; J L Wemeau; J L Richard. Related Documents: 15829943 - Hyaluronic acid production and cd44 expression in cultured dermal fibroblasts of patien 10204663 - Atherosclerosis in amputated legs of patients with and without diabetes mellitus. 17609403 - Association between glycosylated hemog