Clinical Efficacy of a Kaolin-impregnated Dressing for Hemostatic Control in Diabetic Foot Ulcer Patients Receiving Anticoagulant Therapy in an Outpatient Clinic: Prospective, Randomized, Clinical Trial
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Introduction/Purpose: Orthopedic physicians encounter many diabetes patients who receive anticoagulant treatment because vascular diseases are the chief causes of death and disability in these patients. In these patients, if surgery or other procedures are required, it is still unclear whether anticoagulation therapy administration should continue. After discontinuation of anticoagulation therapy, the risk of cardiovascular complications is increased, although complications of bleeding after surgery are decreased; this is a dilemma in the treatment of diabetic foot ulcer. The purpose of this study was to examine the effectiveness, safety, and hemostatic effect of kaolin-impregnated gauze on diabetic foot ulcer patients who continue to receive anticoagulants after surgical debridement.

Methods: Twenty patients receiving anticoagulant medication with diabetic foot ulcers requiring surgical debridement were enrolled. Diabetic foot ulcers were treated using surgical debridement and a basic dressing protocol, which involved direct application of the dressing material to the wound bed. For the study group, a kaolin-impregnated dressing was used, and dry gauze was applied to patients in the control group. Patients were randomly assigned to either group, and we compared hemostatic efficacy and adverse effects between the two groups. The presence or absence of hemostasis was assessed 5 and 10 minutes after dressing application. Treatment was considered successful if bleeding ceased adequately and no extra hemostatic measures were required within 10 minutes.

Results: In the 20 patients undergoing surgical debridement, there was no evidence of bleeding within 10 minutes of dressing application. Eight of the 10 patients treated with a kaolin-impregnated dressing achieved complete hemostasis within 5 minutes. Five of the 10 patients in the control group failed to achieve hemostasis within 10 minutes. No adverse effects were noted.

Conclusion: The use of a kaolin-impregnated dressing appears to be a safe, feasible, and beneficial option for the management of diabetic foot ulcer patients with a high risk of bleeding.