Field Efficacy of BursaTek® in 100 MS Walk Participants

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INTRODUCTION

- Friction blister forms from a cleavage between s. granulosum and s. spinosum
- Most blisters require simple first aid
- Activities in more remote areas such as hiking, running and rock climbing expose subjects to a more serious risk of injury, i.e. infection
- Few studies are available regarding blister formation in strenuous activities-some studies report 7-54%
- In spite of shoe gear advancements, blister formation still remains a very common problem
- The 2005 MS Walk is a successive 3-day 50 mile walk for charity. Walkers included both able-bodied individuals and those diagnosed with Multiple Sclerosis. Due to the nature of excessive walking lengths and abnormal terrain, the MS Walk lends itself to an obvious at-risk environment for blister development, which has been a common occurrence in previous MS walks

METHODS AND MATERIALS

As approved by Temple University IRB, 100 MS Walk participants were consented, and had both feet assessed using an Enrollment form and pre-walk Skin Assessment form. Either the right or left foot was randomly selected for the application of the BursaTek® gliding dome to two sites (the back of the heel and the plantar aspect on the head of the first metatarsal). Each subject served as their own control, as the contra-lateral limb had no product applied. Bandages were applied by Temple University School of Podiatric Medicine staff. As per manufacturers specifications, adhesion of the bandage was enhanced with the use of Mastisol® liquid adhesive, at day 1 pre-walk, and bandages removed with the aid of Detachol®, at day 1 post-walk. At post-walk, study site photographs, Skin Assessment, and subject product evaluation was completed.

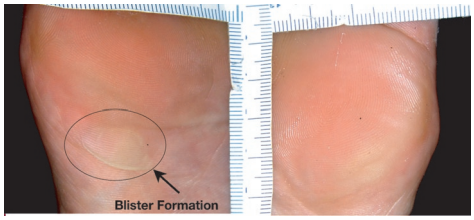
MISCELLANEOUS RESULTS

- Average total pedal blister formation among the population was 49% with an average of 2.3 blisters/person
- Areas of blister formation was digits>heel>submetatarsal heads
- Subjects evaluation of blister prevention due to BursaTek® product was 4 (1-poor, 2-fair, 3-good, 4-v. good, 5-excellent)

CONCLUSION

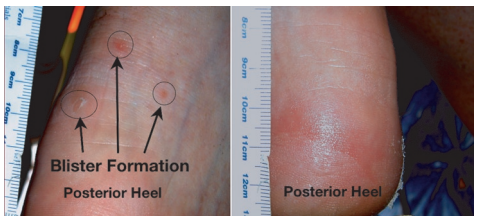
Subjects limbs without the bandages featuring BursaTek® applied, showed 5 times more blister formation, than the BursaTek® contralateral limb. Some BursaTek® sites showed blister formation proximal or distal to the edge of the bandage, which suggests friction protection under the bandage. Utilization of bandages with BursaTek® in other strenuous activities, and application in other areas, such as digits, is warranted.

SITE #1 FIRST METATARSAL PHALANGEAL JOINT

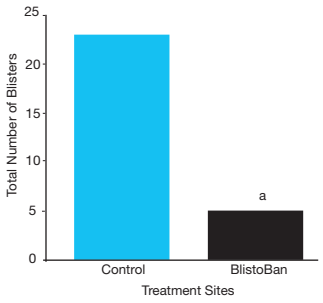


Control Site BursaTek® Site

SITE #2 POSTERIOR HEEL

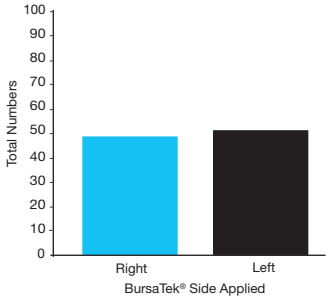


Control Site BursaTek® Site



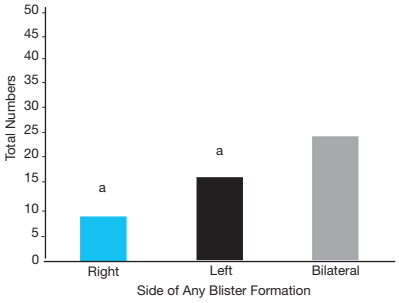
STUDY SITE BLISTER FORMATION

100 MS Walk participants were side randomized and had 2 bandages with BursaTek® applied. 23 control sites formed blisters sub-first MPJ, posterior heel, or both. 5 BursaTek® sites formed blisters sub-first MPJ, posterior heel, or both. Control sites significantly formed more blisters than BursaTek® sites: a=P<.05, when compared to contra-lateral control sites.



APPLIED BURSATEK® SITES

100 MS Walk participants were side randomized and had 2 bandages with BursaTek® applied. There was no significant difference in the number of left and right limbs in which served as BursaTek® study sites, P>.05.



TOTAL PEDAL BLISTER FORMATION

100 MS Walk participants were side randomized and had 2 bandages featuring BursaTek® applied. Total number of blisters were evaluated for each limb. No statistical difference was noted between right and left limbs, P>.05.There were more blisters observed bilaterally, than right or left alone, P<.05.