

Management of Foot and Abdominal Chronic Wounds with an Innovative Topical Powder

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C A S E S T U D I E S

A 53-year-old female was standing next to a car when it rolled over her right foot causing a rupture of the Achilles tendon and extensive wounds. Following two surgeries, the chronic wounds located on the tendon, ankle (right side), and sole were extensive and infected. The largest wound was on the ankle at 3 inches by 1 ½ inches wide. The wound on the back of the heel measured 1 ½ inch. When the local compounding pharmacist was consulted, an innovative topical treatment was recommended, including pentoxifylline 2%, phenytoin 2%, naltrexone HCl 0.1%, misoprostol 0.0024%, arginine HCl and beta glucan in a patent-pending, powder-to-hydrogel, film-forming polymer complex base with tissue-protective and microbiome-supportive properties.

Pentoxifylline USP	2 g
Phenytoin USP	2 g
Naltrexone Hydrochloride USP Anhydrous	Calculate
Misoprostol 1% (HPMC Dispersion)	0.24 g
Arginine Hydrochloride USP	1 g
Beta Glucan (1,3) NQ	0.2 g
Base, PCCA EctoSeal P2G™ Powder	q.s. 100 g

A 74-year-old male presented with a chronic wound in his abdominal area due to multiple past surgeries, including hernia operations, a blockage extraction and a scar tissue removal. During this latest surgery, an accidental cut to the intestinal wall led to sepsis and a long hospitalization until full recovery. Despite multiple treatments, the chronic wound remained in the patient's abdominal area and measured about 1 ½ inch long by 1 inch wide. The skin in this area was very thin but there was no infection. When the local compounding pharmacist was consulted, an innovative topical treatment was recommended, including phenytoin 2%, aloe vera 0.2%, misoprostol 0.0024% and beta glucan in the patent-pending, powder-to-hydrogel, film-forming polymer complex base with tissue-protective and microbiome-supportive properties.

Phenytoin USP	2 g
Aloe Vera Powder Freeze Dried 200:1	0.2 g
Misoprostol 1% (HPMC Dispersion)	0.24 g
Beta Glucan (1,3) NQ	0.2 g
Base, PCCA EctoSeal P2G™ Powder	97.36 g



Before Treatment



1 Week



6 Weeks



End of Treatment



Before Treatment



4 Days After Treatment



C O N C L U S I O N S & R E F E R E N C E S

The foot chronic wounds of the female patient were partially closed following 1 week of topical treatment, and almost fully closed by the end of 6 weeks. The abdominal chronic wound of the male patient decreased in size considerably in just 4 days of topical treatment. In both case studies, the innovative topical treatments were safe and effective.

Banov, D.; Song, G.; Foraida, Z.; Tkachova, O.; Zdoryk, O.; Carvalho, M. *Integrated In Vivo and In Vitro Evaluation of a Powder-to-Hydrogel, Film-Forming Polymer Complex Base with Tissue-Protective and Microbiome-Supportive Properties*. *Gels* 2024, 10, 447. <https://doi.org/10.3390/gels10070447>