

## **Evaluation of BerbereX, an FDA-approved chronic wound cleanser, as an adjunct to wound healing in foot and ankle practice**

Darrell V Morris<sup>1</sup>, Gary Stewart<sup>2</sup>, Aaron Tyagi<sup>3</sup>, Steven M Kane<sup>3</sup> and Timothy Ganey<sup>3</sup>

<sup>1</sup>*Morehouse School of Medicine, USA*

<sup>2</sup>*Resurgens Orthopedics – McDonough, USA*

<sup>3</sup>*Atlanta Medical Center, USA*

### **Abstract**

BerbereX, an FDA approved wound cleanser with established antibiotic and anti-inflammatory properties, has been shown to help decrease the duration of time needed to attain complete wound healing. It is known that berberine illustrates antimicrobial and antifungal properties and if used in conjunction with ionic silver, Berberine's antimicrobial action is amplified. Additionally, Berberine's pH regulation properties and its ability to decrease skin free radicals further helps with retention of a viable wound healing environment. The way in which the berberine molecule inhibits bacterial growth is not entirely understood but some evidence notes that it may bind to bacterial DNA inhibiting transcription and replication. This study aims to evaluate the effectiveness of BerbereX on chronic wounds, specifically foot and ankle insults over a 10-week period. Patients were chosen based on presentation in foot and ankle orthopedic practice, with wounds that had not responded to previous standard practice treatment including dressings, antibiotics, and debridement. Participants applied BerbereX twice a day alongside their normal wound care routine approved by the physician, and wounds were evaluated according to clinical protocol or at 2-week intervals. Those patients randomized to the BerbereX treatment responded favorably with 75% of wounds healed over the course of 3.75 weeks. Additionally, healing time was comparable between diabetics and non-diabetics with usage of BerbereX. This study demonstrates that BerbereX treatment helps to reduce the duration in which wound healing occurs in problematic foot and ankle insults while facilitating overall reduction of wound dimensions. Moreover, BerbereX use as a wound cleanser decreases the duration of wound healing independent of the presence of diabetes.

### **Biography**

Darrell V Morris completed his Bachelor's of Science degree at the University of Georgia and is currently pursuing his Doctorate of Medicine at Morehouse School of Medicine. He is a member and former vice-president of Morehouse School of Medicine's Bonnie Simpson-Mason's Orthopedic Interest Society. Moreover, he is a member of the 2015 cohort of N<sup>th</sup> Dimensions Orthopedic Summer Internship Scholars Program. During this program he functioned under the mentorship of foot and ankle orthopedic surgeon Dr. Gary Stewart, MD and additionally, worked with the orthopedic residency program at Atlanta Medical Center.

DMorris@msm.edu