CASE STUDY

Snapsho₂t_m

Using SnapshotNIR to enhance patient education & compliance

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Patient Details

51-year-old male with neuropathy from spinal injury.

Case Details

The patient suffers from neuropathy and a significant foot deformity as the result of a severe motorcycle accident. He ambulates with an abnormal gait walking predominantly on his heels which has resulted in the development of an ulcer on his left heel. The wound was initially treated with offloading and dressing changes, performed at home by the patient's wife. The patient presented for wound care consultation when this at-home treatment was failing to reduce the size of the ulcer.



Patient walks predominantly on his heels and the abnormal gait has resulted in the development of an ulcer on his left heel seen here in a clinical image captured on SnapshotNIR.

Observations

On his initial clinic visit, SnapshotNIR imaging of the wound demonstrated high levels tissue oxygenation with marked increase in oxyhemoglobin over the patient's calcaneal region when compared with his surrounding tissue by using the device's hemoglobin view. The images were consistent with increased tissue perfusion, suggesting significant tissue inflammation due to repetitive trauma related to inadequate offloading.

The images demonstrated that the clinical evaluation suggesting that the patient was not properly offloading was correct. This confirmation enabled us to modify the offloading device and to positively impact the conversation with respect to treatment compliance. Using these images, we were able to visually communicate to the patient and his family the presence of the underlying inflammation and explain how this inflammation was caused by inadequate offloading which was negatively affecting the healing progress. Education regarding how strict offloading would decrease the tissue inflammation and enhance wound closure was accomplished. SnapshotNIR imaging was repeated at follow-up visits to demonstrate improvement in inflammation reduction which correlated with wound healing.



The NIRS S_iO_2 image from SnapshotNIR shows significant inflammation supporting the diagnosis of osteomyelitis.

DR. CHARLES ANDERSEN

Dr. Charles Andersen is the Chief of Vascular/ Endovascular/Limb Preservation services (Emeritus) Chief of Wound Care Service, Madigan Army Medical Center, Tacoma, WA; Clinical Professor of Surgery, UW, USUHS.

Impact

The Snapshot images were used in this case to identify tissue inflammation caused by repetitive trauma and inadequate pressure relief on the patient's heel due to inadequate offloading. This visual evidence of the underlying pathology helped to confirm clinical diagnosis, improve the offloading technique and help to educate the patient and enhance compliance with the treatment plan. These measures contributed to an improved wound healing trajectory and wound closure. "SnapshotNIR is a very valuable tool as a measure of treatment compliance and as an adjunct to patient education."

- Charles Andersen, MD



