

Snapshot₂^{NIR}

Seeing is Believing in Wound Care

CASE STUDY

Enhancing engagement with serial imaging in patient with skin flap replacement

Taylor Wright, DPM

Podiatrist Diplomate with the American College of Foot and Ankle Surgeons. Co-founder of the Innovation Medical Group Salt Lake City, Utah.

“Using Snapshot₂^{NIR} to assess wound tissue helps to establish tissue viability, supports therapeutic decisions, and engages the referring physician and patient in the treatment program.”

TG Wright, DPM

CASE HISTORY

An 82-year-old male patient with a history of diabetes, chronic diabetic foot ulcer and previous tissue ulcerations, sustained a large wound with flap after experiencing a fall. The patient sought treatment at the local ER with a traumatic injury to the lower extremity. The ER attending physician attempted a flap repair. After several weeks of little to no healing progress, the patient was referred to the clinic at Innovation Medical Group for further evaluation and treatment.

INITIAL VISIT

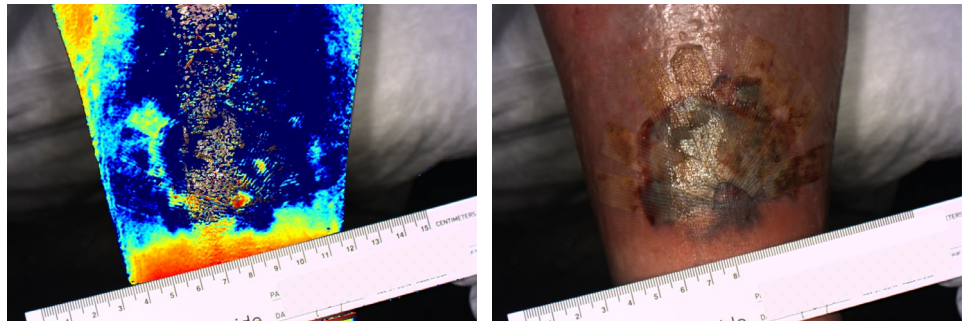


Fig 1: Initial assessment – before flap removal and the application of a cellular tissue product (CTP).

MID TREATMENT

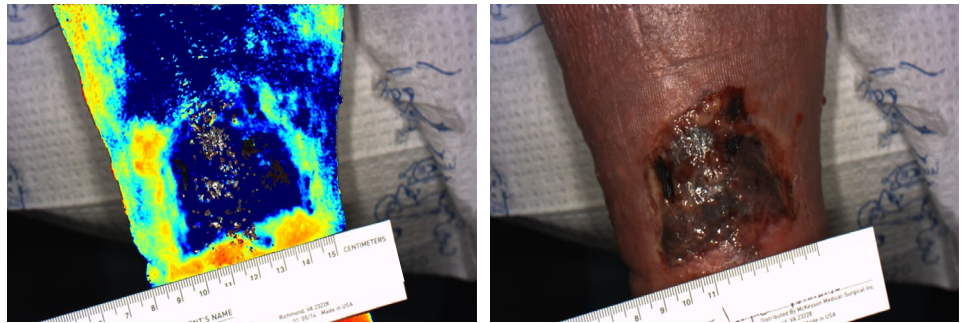


Fig 2: Seven (7) days following flap removal and CTP application.



Fig 3: Thirty (30) days following flap removal and CTP application.

Snapshot₂^{NIR}

Seeing is Believing in Wound Care

What are you doing to measure microvascular oxygenation?

Wounds can be deceptive. Leveraging near-infrared spectroscopy (NIRS) for tissue assessment goes beyond the macrovascular to measure the critical microvascular level.

Did you know?

Snapshot_{NIR} offers immediate linear and area measurements for wounds.



OBSERVATIONS

To rapidly assess the wound tissue, near-infrared spectroscopy (NIRS) imaging (Snapshot_{NIR}, Kent Imaging) was used on presentation to establish a baseline. The imaging captured indicated that the flap had very low oxygenation due to a lack of flap tissue perfusion and would therefore not support regeneration. The oxygenation image demonstrated flap failure which was shown to both the patient and the referring physician to demonstrate the likely reason for the lack of progress and to discuss a change in the treatment approach. The decision was made to remove the flap and initiate the application of a cellular tissue product. Snapshot_{NIR} was used to assess wound healing in addition to the integration of the cellular tissue product. NIRS imaging tracked documented improved outcomes throughout the complete course of therapy.

LATE TREATMENT

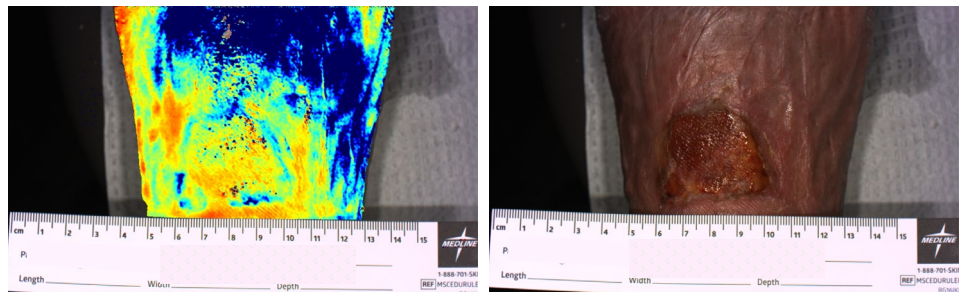


Fig 4: Forty-one (41) days following flap removal and CTP application.

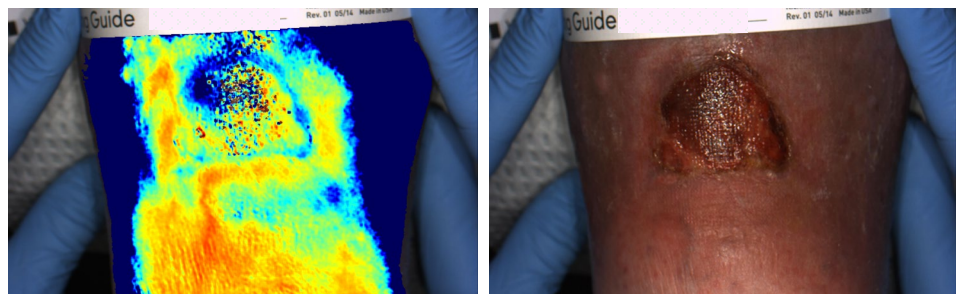


Fig 5: Sixty-one (61) days following flap removal and CTP application.

BENEFITS OF APPROACH

Snapshot_{NIR} immediately demonstrated the tissue viability of the flap in a visual format which helped to redirect the course of treatment. The flap had originally been maintained in a hope to support healing. Due to the lack of oxygen in the tissue, the poorly perfused flap appeared to be impeding the healing process. The oxygenation imaging supported our dialogue with both the referring physician and the patient. This supported ongoing engagement and improved compliance in the overall treatment plan and healing process. 