

CASE STUDY

Bilateral skin sparing mastectomy with immediate DTI reconstruction

Supporting real-time informed decision making.

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“Knowing that the flaps are well oxygenated and viable is a key factor in the decision to proceed with a direct-to-implant reconstruction. Snapshot_{NIR} plays a critical role in guiding our decision making.”

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CASE HISTORY

48-year old non-smoking female diagnosed with left ductal carcinoma in situ (DCIS) underwent a bilateral skin-sparing mastectomy with a pre-pectoral direct-to-implant (DTI) approach. Both SPY ICG fluorescence imaging and Snapshot_{NIR} near infrared spectroscopy imaging were performed post mastectomy.

Snapshot_{NIR} images showed the flaps to be well oxygenated and viable, whereas the SPY images showed an area of concern outlined in the clinical images seen in Figure 1. Mastectomy flap size was preserved based on the oxygenation images obtained with Snapshot_{NIR}. As a result, the surgeon chose to proceed immediately with the planned DTI procedure instead of switching to expanders. The mastectomy flap survived post-operatively and completed healing without complication.

By preserving the skin flap, DTI pre-pectoral reconstruction was achieved.

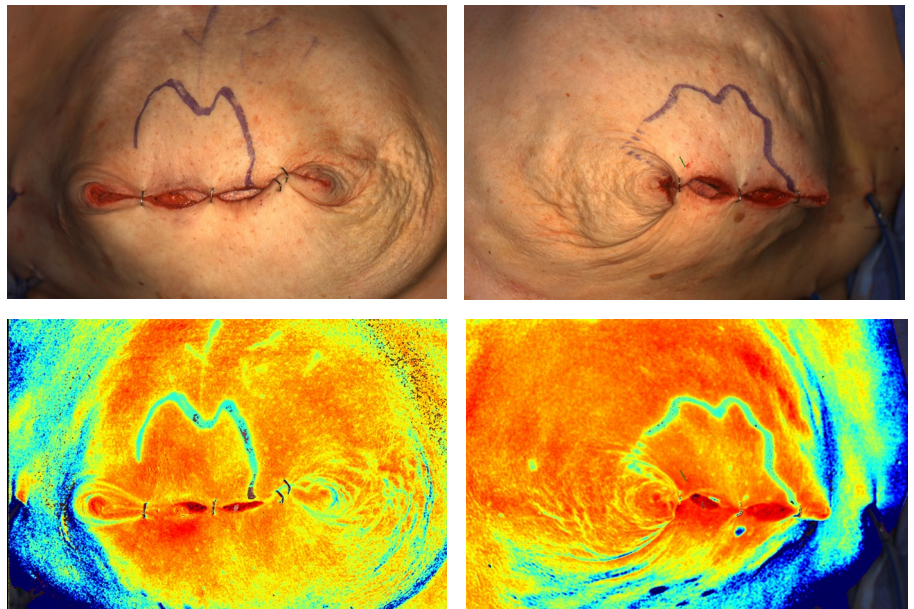


Figure 1: The area of concern noted by SPY regarding flap viability is demarcated by the surgical marker and the incision line on both the right and left breasts. The NIRS images of each breast illustrates adequate tissue oxygenation in these zones, providing additional insight to the surgeon to proceed with the planned reconstruction.

Portable for all points of care

Preoperative Planning

Quickly and easily assess the wound bed and surrounding tissue without the use of dyes or patient contact.

Intraoperative Assessment

Assess surgically manipulated or altered tissue to determine flap viability.

Postoperative Surveillance

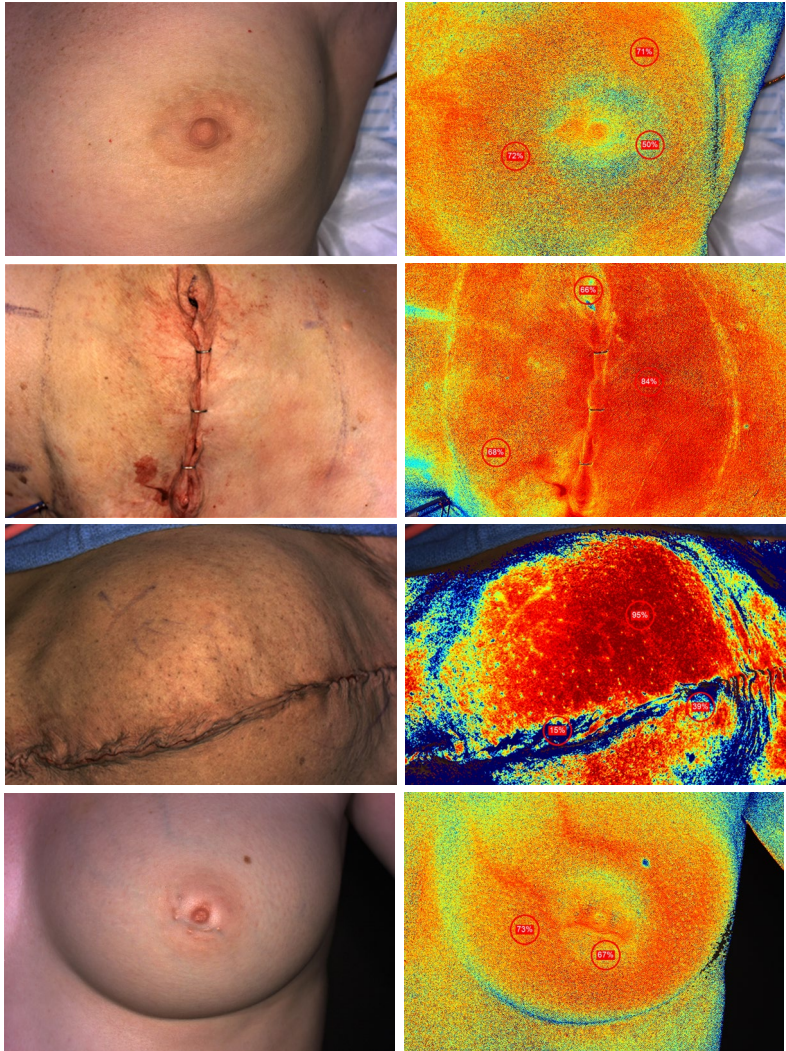
Continued surveillance in recovery ensures tissue survival and identification of congested flaps prior to discharge.

Follow-Up Visit Tracking

Evaluate areas of concern to ensure continued positive flap health. The immediate visual data supports the ability to optimize expansion with maximal filling, while ensuring tissue viability throughout each visit.

In-Clinic Monitoring

Ability to assess dehiscenced or slow healing wounds without the need for injections or patient contact.



Rapid tissue oxygenation (S_tO_2) assessment of soft tissue and autologous flaps.