Sentinel lymph node biopsy (SLNB) has been reliably accurate as a minimally invasive surgical alternative for identifying lymphatic breast metastasis. During mapping, the injection of a radioactive tracer or isosulfan blue dye to differentiate the SLN is acutely painful. The use of the eutectic mixture of lidocaine and prilocaine (EMLA) cream to reduce tracer injection pain has been reported anecdotally. A retrospective study compared injection discomfort of 20 women who had undergone SLNB without EMLA and 20 women who had undergone SLNB with the EMLA protocol. Results indicated a significant difference in mean pain rating. Standards of care should include the use of EMLA prior to intradermal SLN tracer injection unless contraindicated.

Relieving the Pain of Sentinel Lymph Node Biopsy Tracer Injection

Susan Fetzer, PhD, RN, and Sue Holmes, RN

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Background

The first lymph node to which lymphatic drainage and metastasis from breast cancer occurs is, by definition, the sentinel node (Schwartz, 2004). If the sentinel node(s) can be identified preoperatively and dissected and evaluated for cancer cells, then the appropriate surgical procedure can be performed. Two nonsurgical techniques are used to identify the sentinel node.

At a Glance

- Intradermal injections of radioisotopes are extremely painful.
- The eutectic mixture of local anesthetics is effective at reducing injection pain prior to sentinel node biopsy.
- Nurses should advocate for interventions that minimize discomfort during diagnostic procedures.

Fetzer conducted a meta-analysis on the use of EMLA to reduce the pain of IV insertion and reported that 85% of the population would obtain pain relief from EMLA. However, research reporting the use of EMLA for SLNB tracer injection pain could not be identified.

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