

# A Randomized Trial of Hypnosedation Versus General Anesthesia for Women with Breast Cancer Undergoing Surgery

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## Background:

General anesthesia may be associated with increased sedation, nausea and vomiting, cognitive deficits, and postoperative complications. These effects coupled with the stress of surgery may be more pronounced in patients with severe co-morbidities.

Alternative approaches may reduce the stress response and allow patients to avoid general anesthesia in the surgical setting. Hypnosedation (HS), which consists of hypnosis, local anesthetics and the sparing use of opioids, provides an alternative to general anesthesia.

Prior research has examined Hypnosedation (HS) on patient outcomes either provided prior to invasive surgical procedures such as breast cancer (BCa) surgery, where patients are under general anesthesia (GA), or during less invasive procedures.



## Methods:

We conducted a 2-arm RCT of HS *during* BCa surgery. Fifty patients were randomized to either: 1) HS+local+fentanyl or 2) GA+local+fentanyl. Medication usage was collected starting in pre-op holding area until time of discharge and morphine equivalent daily dose (MEDD) was calculated. Verbally reported anxiety, pain, and nausea (0-10 scale) was collected at time of recruitment, then in the pre-op holding, in PACU until ready for discharge, and then again on POD1, 7, and 14.

## Results:

Patients had either stage 0 or I BCa and underwent breast conserving surgery with (n=35) or without sentinel node dissection (n=15). The MEDD, mainly due to differences in IV fentanyl use, was significantly lower for the HS versus GA group (means [SD]: 22.9 mg [11.7] vs. 39.3 mg [14.1],  $p < 0.005$ ). The GA group needed more opioids during surgery to stabilize vital signs. Patients in HS group were conscious throughout surgery and entered the PACU alert and with less pain and nausea.

The time to ready for discharge in the PACU was significantly lower for the HS group (85 min [44] vs. 149 min [52],  $p = 0.0001$ ). On POD1, patients in HS versus GA group reported significantly less nausea (0.4 [1.3] vs. 1.4 [1.4],  $p < 0.05$ ) with non-significant differences in anxiety (0.0 vs. 0.9 (1.7),  $p > 0.05$ ) and worst pain in past 24 hours (1.4 [2.0] vs. 2.1 [2.4],  $p > 0.05$ ). There were no significant differences between the two groups on POD 7 and 14.

## Conclusion:

The use of HS in place of GA for early stage BCa surgery was feasible. Even in the absence of group differences for pain levels, the HS group had an almost 50% reduction in opioid use.

## References:

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