

Hypnosis Before Surgery Dulls Pain Later

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NEW YORK -- Presurgical hypnosis may improve pain control during and after breast cancer surgery and cut costs as well, researchers said.

MedPage Today Action Points

- Explain to interested patients that the study supported a benefit of hypnosis in breast cancer surgery similar to that seen in some other surgical procedures.

NEW YORK, Aug. 28 -- Presurgical hypnosis may improve pain control during and after breast cancer surgery and cut costs as well, researchers said.

Women in a randomized study who underwent brief hypnosis immediately before lumpectomy or biopsy required a third less of the sedative [propofol \(Drug information on propofol\)](#) (Diprivan) and significantly less ($P < 0.001$) anesthetic [lidocaine \(Drug information on lidocaine\)](#) (Xylocaine) during their procedure than controls, according to a report in the Sept. 5 issue of the Journal of the National Cancer Institute.

Hypnotized patients also reported less pain intensity after surgery ($P < 0.001$) and their institutional cost per patient was .71 lower than controls, said Guy H. Montgomery, Ph.D., of Mount Sinai School of Medicine here, and colleagues.

"It has taken us a century and a half to rediscover the fact that the mind has something to do with pain and can be a powerful tool in controlling it," commented David Spiegel, M.D., of Stanford University, in an accompanying editorial.

One of the early reports of anesthetic uses of hypnosis was an 1846 account by surgeon James Esdaile of 80% surgical anesthesia using hypnosis alone during amputations in India, Dr. Spiegel noted.

Since then, it has proven effective against pain in studies of at least 20 different surgical populations, Dr. Montgomery and colleagues added.

Their study included 200 women undergoing excisional breast biopsy or lumpectomy regardless of planned axillary node dissection at two surgical practices.

Participants attended a 15-minute session with a psychologist within the hour before surgery and were randomized to either hypnosis or just undirected empathetic comments.

Hypnosis included muscle relaxation imagery, visual imagery, suggestions to experience relaxation and peace, and symptom-focused suggestions to experience reduced pain, nausea, and fatigue.

Although the researchers did not formally blind the study, interventions took place in a room away from clinical staff, and neither the psychologists nor the clinical staff collected outcome data.

Anesthesiologists followed a monitored anesthesia protocol for all patients and were blinded to group assignment.

During surgery, the hypnosis group required less analgesic and sedative medication overall than the control group ($P < 0.005$).

Specifically, patients who had a hypnosis intervention were given less lidocaine (mean 24.23 versus 31.09 mL, $P < 0.001$) and less propofol (mean 64.01 versus 96.64 μ g, $P = 0.03$).

But, mean intraoperative [fentanyl](#) ([Drug information on fentanyl](#)) and [midazolam](#) ([Drug information on midazolam](#)) doses were similar between groups, which may not have been surprising, the researchers said.

"Most patients presenting for breast cancer surgery typically receive a standard dose of fentanyl and/or midazolam before the onset of the procedure and titrated doses of lidocaine and propofol as judged necessary by the anesthesiologist based on patient agitation," they wrote.

Analgesic use in the post-anesthesia care unit was similar between groups as well.

The hypnosis group spent 10.60 fewer minutes in surgery, on average, than the control group, possibly because patients were "easier to prepare for surgery and to sedate or due to less time having been spent administering medications to patients," the researcher speculated.

Less time in the OR translated into an institutional cost savings of .71 per patient with hypnosis (95% confidence interval .10 to .469.89, $P < 0.03$), they added.

Patients' experiences after the procedure were also significantly better overall with hypnosis ($P < 0.0001$). This included the following self-reported outcomes for the hypnosis versus control groups:

- Less intense pain (visual analog scale mean 22.43 versus 47.83, $P < 0.001$).
- Less pain unpleasantness (mean 21.19 versus 39.05, $P < 0.001$).
- Less nausea (mean 6.57 versus 25.49, $P < 0.001$).
- Less fatigue (mean 29.47 versus 54.20, $P < 0.001$).
- Less discomfort (mean 23.01 versus 43.20, $P < 0.001$).
- Less emotional upset (mean 8.67 versus 33.46, $P < 0.001$).

Each of these advantages had an effect size deemed clinically meaningful, the researchers said.

Further study will be needed to look at longer-term outcomes and other patient and demographic samples as well as to examine whether anesthesiologists or nurses could effectively do the hypnosis intervention, they added.

In his editorial, Dr. Spiegel speculated on reasons why hypnosis is not frequently used in the surgical setting, including the fact that there is no product to sell and that there is a "still lingering suspicion that hypnosis reeks of stage show trickery."

But, he said, hypnosis is simply a state of highly focused attention with low peripheral awareness and high responsiveness to social cues similar to "suspension of disbelief" while absorbed in a movie or book.

The study was funded by grants from the National Cancer Institute, the American Cancer Society, and the Department of Defense. The researchers and Dr. Spiegel disclosed no conflicts of interest.

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