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## RSNA Press Release

### Hypnosis Helps Women Cope with Breast Biopsy

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CHICAGO — Radiologists are using an unusual approach, hypnosis, to ease patient pain and anxiety during breast biopsy procedures. A new study from Beth Israel Deaconess Medical Center and Harvard Medical School in Boston found that women who were guided into a state of hypnotic relaxation during biopsy experienced less pain and anxiety during the procedure. The study was presented today at the annual meeting of the Radiological Society of North America (RSNA).

Finding a breast lump or receiving abnormal or inconclusive mammogram results can be highly stressful for a woman. Large-core needle biopsy (LCNB) is an effective diagnostic tool. However, most LCNB procedures are performed in outpatient settings, limiting the use of intravenous drugs to reduce pain and anxiety.

"Hypnosis can greatly help women cope with the stress of breast biopsy," said Elvira V. Lang, M.D., associate professor of radiology at Harvard. "This is a consumer-driven movement. Already we are seeing the beginning of it."

Dr. Lang and colleagues studied 236 women undergoing LCNB at a university-affiliated medical center. The patients were randomly assigned three types of care during the procedure. Seventy-six women received standard care, 82 women received structured empathetic attention with a person specifically assigned to be responsive to their needs, and 78 women induced self-hypnotic relaxation under instruction from a trained research assistant.

The assistant read a standardized hypnotic induction script that, among other things, instructed patients to roll their eyes upwards, close their eyes, breathe deeply, focus on a sensation of floating and invoke a pleasant setting of their choice with all of their senses.

The researchers then compared several factors, including levels of pain and anxiety and procedure time and cost. All of the patients presented with elevated anxiety. Anxiety increased significantly in the standard care group, did not change in the empathy group and

#### At A Glance

- Hypnosis reduces pain and anxiety during breast biopsy.
- Procedures done while using the self-hypnotic relaxation technique were completed faster and cost less than procedures done with "standard care."
- Self-hypnotic relaxation provides women with a coping technique during subsequent times of stress.

decreased significantly in the hypnosis group. All three groups reported pain during the procedure, but the empathy and hypnosis groups reported significantly less pain than the standard care group.

Procedure time and cost did not differ significantly among the groups even though the empathy and hypnosis groups had an additional assistant. The hypnosis group had the shortest procedure time and the lowest cost.

Dr. Lang attributed the shortened procedure time to the decreased level of stress, not only for the patient, but for the treatment team. The relaxation technique serves to calm and focus everyone involved in the procedure, she noted.

"The findings show that nonpharmacologic means can be very powerful—without side effects," Dr. Lang said. "The results extend prior assumptions about mind-body interventions in that self-hypnotic relaxation can be learned very quickly right on the procedure table without additional cost, challenging the notion that extensive office visits or preparation are necessary."

In addition, through the self-hypnotic relaxation coaching of the research assistant, the patients learned a coping tool that they could take with them and use to relieve anxiety through subsequent waits and work-ups.

"This research embraces a holistic approach combining 'high-tech' with 'high-touch' that respects the needs of women during the stressful times of breast biopsy," Dr. Lang said. She added that this method has been successfully applied to a number of other interventional procedures.

This study was supported by the U.S. Army Medical Research and Materiel Command and the National Institutes of Health, National Center for Complementary and Alternative Medicine.

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RSNA is an association of more than 40,000 radiologists, radiation oncologists, medical physicists and related scientists committed to promoting excellence in radiology through education and by fostering research, with the ultimate goal of improving patient care. The Society is based in Oak Brook, Ill.

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