

RSNA Press Release

Some Benign Breast Lesions Could Be Dangerous

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OAK BROOK, Ill.—Certain breast lesions diagnosed as benign on core needle biopsy have cancer at surgical excision and thus should be removed, according to a study appearing in the March issue of *Radiology*.

"Our study shows that all papillary lesions of the breast should be surgically excised to avoid missing a cancer," said the study's lead author, Cecilia L. Mercado, M.D., assistant professor of radiology at New York University Medical Center in New York City.

Papillary lesions are benign growths in the duct of the breast. They comprise approximately 1 to 3 percent of all lesions sampled by core needle biopsies. Currently, the treatment of these lesions alternates between radiographic follow-up and surgical excision, and is often dependent upon physician recommendation.

"To date, the management of benign papillary lesions on core needle biopsy has been controversial and may be based on anecdotal evidence or small published studies," Dr. Mercado said. "No definite guidelines are published for management of these lesions."

While papillary lesions may be diagnosed as benign, they can harbor adjacent atypical ductal hyperplasia (ADH) — a condition characterized by cells of unusual size, shape, and number in the lining of the milk ducts — and ductal carcinoma in situ (DCIS), which are cancerous cells confined to the lining of the milk ducts. Left unchecked, both these conditions pose increased risk of future malignancy.

For the study, Dr. Mercado and colleagues reviewed the imaging and histologic follow-up findings in 42 patients diagnosed with benign papillary lesions after breast core needle biopsy. Forty-three biopsies were performed on the 42 patients. Of the 43 biopsies, 36 (84 percent) of the lesions were surgically removed, and seven (16 percent) received long-term imaging follow-up.

At A Glance

- Papillary lesions are benign growths in the duct of the breast and comprise 1 to 3 percent of all lesions sampled by core-needle biopsies.
- Benign papillary lesions of the breast should be surgically removed.
- Approximately 21.4 percent of papillary lesions diagnosed as benign at core needle biopsy harbored cancerous and pre-cancerous cells.

Upon surgical excision and follow-up, the diagnoses of nine of 42 patients (21.4 percent) were upgraded to ADH or DCIS. This is a much higher percentage than reported by previous studies.

"This is one of the largest series and shows statistically significant findings," Dr. Mercado said. "The results of our study revealed a considerable upgrade rate to either ADH or DCIS at core-needle biopsy. Therefore, all benign papillary lesions of the breast should be surgically excised, since a considerable number of atypical lesions and malignant lesions could be missed."

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Radiology is a monthly scientific journal devoted to clinical radiology and allied sciences. The journal is edited by Anthony V. Proto, M.D., School of Medicine, Virginia Commonwealth University, Richmond, Va. *Radiology* is owned and published by the Radiological Society of North America, Inc. (radiology.rsna.org)

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"Papillary Lesions of the Breast on Percutaneous Core Needle Biopsy." Collaborating with Dr. Mercado on this paper were Diane Hamele-Bena, M.D., Shara M. Oken, M.D., Cory I. Singer, M.D., and Joan Cangiarella, M.D.