

Duke University Medical Center Intercom

VOL. 25, NO. 34

AUG. 25, 1978

DURHAM, N.C.

Duke study shows

X-ray images hold clue to breast cancer

By William Erwin

Two X-ray pictures of each breast can give women a clue to their future breast cancer risk, according to a new study by Comprehensive Cancer Center researchers.

High-risk women have breasts that look unusually dense on the X-rays. These women are seven times as likely to develop breast cancer as low-risk women, whose breasts look mostly clear on the X-rays, the researchers estimate.

Their findings appear in the June issue of the American Journal of Roentgenology.

Sensitive risk factors

Dr. Robert McLelland, one of the scientists, said the X-ray pictures "may be as important or more important than family history" in predicting breast cancer risk. Daughters and sisters of breast cancer patients have a risk for the disease two to three times as high as other women.

Another researcher, Dr. Lawrence Myers, said of the pictures: "I think this is the most sensitive risk factor we have, with the exception of having had breast cancer."

Reassurance

Besides identifying high-risk women who need frequent breast examinations, the pictures can also reassure women who have a minimal risk for breast cancer.

A woman shown to be low-risk for the disease will remain low-risk for the rest of her life, McLelland said. "A woman's risk classification can get better, but it doesn't get worse," he said.

McLelland is an associate professor of radiology; Myers is an assistant professor of community and family medicine.

Others conducting the study were Dr. Sarah Hainline, a recent graduate of the School of Medicine; Dr. Josephine Newell, associate in community and family medicine; Dr. Seymour Grufferman, assistant professor of community and family medicine and

pediatrics; and Dr. William W. Shingleton, professor of surgery and director of the Comprehensive Cancer Center.

Technique used since 1930s

The X-ray pictures are called mammograms. They are made by X-raying each breast from the top and from the side, a technique known as mammography. Doctors have used mammography since the mid-1930s as an aid in diagnosing breast cancer.

Lumps as small as a pea often show up on mammograms before a woman or her physician can feel them. The pictures also can disclose other possible signs of cancer, such as flecks of calcium in the breasts.

In the study, the researchers gathered mammograms from the files of 171 breast cancer patients. Then they chose an equal number of mammograms from files of women with no breast disease symptoms, matched with the patients by age and race.

Next, the scientists mixed all the mammograms together randomly. There was no way to tell which belonged to a cancer patient and which to a woman without the disease.

Grouped into risk categories

McLelland then grouped the mammograms into four risk categories first defined in 1976 by Dr. John N. Wolfe, chief of the Department of Radiology at Hutzel Hospital in Detroit.

Into the highest-risk group, labeled "DY," went mammograms showing

(Continued on page 3)



LOOKING CLOSELY—Dr. Robert McLelland examines a mammogram made at the Breast Cancer Demonstration Project. A recent study has shown that these X-ray pictures can be used to predict future breast cancer risk. (Photo by William Erwin)

Small stones may fill gaps in history of ancient civilization

By Beverly Wolter
Duke News Service

Intricately carved, thumbnail-sized stones are unlocking some of the mysteries of the Bronze Age civilization in Greece for a Duke scholar.

For several years Dr. John G. Younger, assistant professor of classical studies, has been studying the stones, called sealstones.

Sealstones were used much like signet rings by the Minoans in Crete and the early Greeks who inhabited the mainland, Mycenae.

More fancy than fact

Younger, who will chair the second Marburg Symposium on Minoan-Mycenaean Sealstones in Marburg, Germany, Sept. 26-30, and will take part in a Mycenaean seminar at London University Oct. 11, said that more fancy

than fact surrounds the history of the Minoans and Mycenaeans.

"Most of what we know is legend, based on myths and the stories of Homer and the Trojan wars," Younger said.

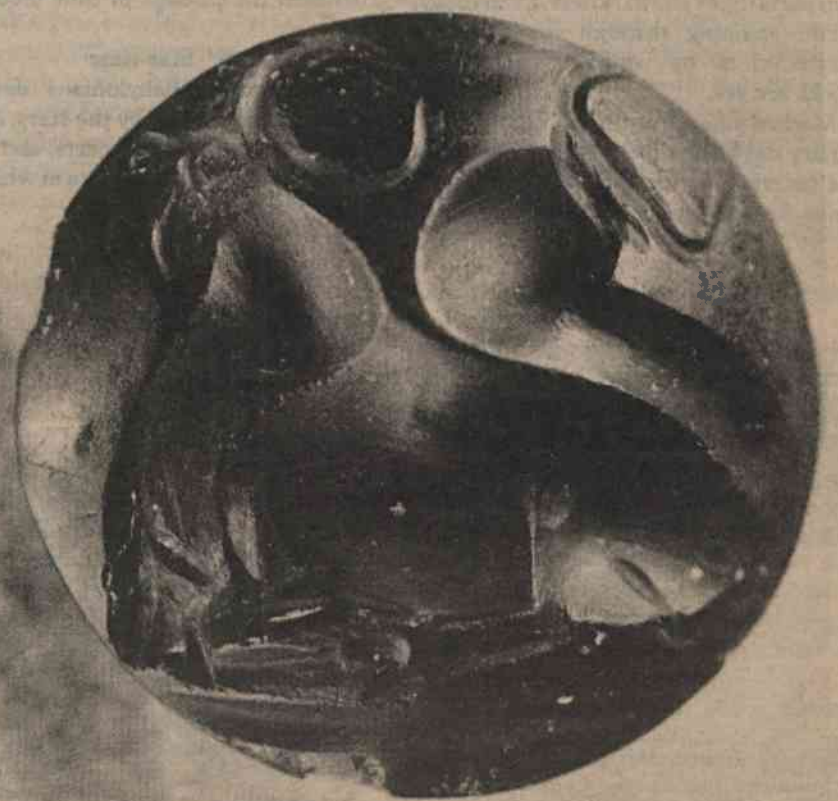
These early Greeks, who flourished from about 3000 to 1200 B.C., had a form of writing, Younger said, but added, "They seemed to use it only for business purposes. They left no history, no poetry, no drama — only accounts — so many loads of grain, so many bales of cloth and so on."

Artists established

Through studies of the carvings on the stones, depicting animals, people and cult and religious scenes, Younger thinks that much can be learned of a definitive nature about these ancient people.

In fact, he has gone so far as to be able

(Continued on page 4)



THUMBNAIL SKETCH—This thumbnail-sized sealstone from Crete dates back to 1450 B.C. A Duke scholar is studying stones such as this one to learn more about ancient Greek civilization.