

Radars Breast Imaging

Brian Shiels

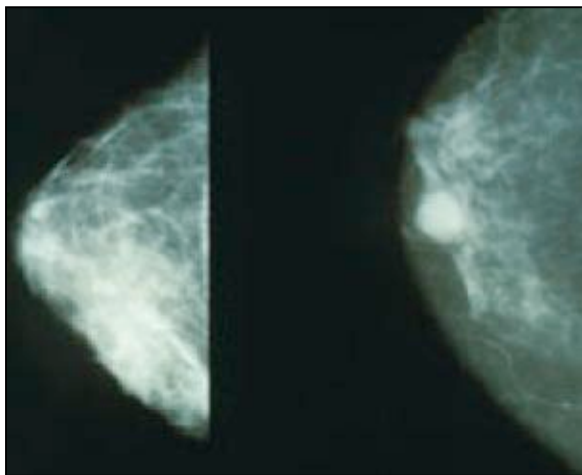
Professor Alan Preece and Dr Ian Craddock from the University of Bristol have been working for a number of years to develop a breast-imaging device which uses radio waves and therefore has no radiation risk unlike conventional mammograms.

The Machine works the same as any radar system. It transmits radio waves of very low frequency and detects reflected signals to produce an image. It can produce a very large detailed 3D image similar to an MRI.

Mike Shere, Associate Specialist Breast Clinician at NBT, added: "Currently women are diagnosed in three ways: firstly by a clinician then by using imaging such as mammography and ultrasound and lastly by a needle biopsy.

"The radar breast imaging system came to Frenchay in September this year and so far around 60 women have been examined using it.

"Women love it as they compare it to a mammogram and find the whole experience much more comfortable."



Normal

Cancerous

The normal technique for finding breast cancer is the mammogram. This machine uses ionizing radiation to produce an image. This adds a small risk of radiation exposure. The ratio is about 48.5 to 1 patients saved to lost due to radiation exposure. There are screening guidelines that need to be followed to reduce the risk. The risk gets greater with increase in age. There is also the risk of false positives and false negatives.

There are studies going on using the new radar breast imaging device over the next 12 months. They plan to focus on young women because it is more challenging. They are also doing studies comparing the two machines.

Over the machine provides a much more comfortable experience for women getting checked for breast cancer. It eliminates some of the risks and down sides that come with other imaging devices and hopefully will prove to allow more accurate detection of breast cancer.

Sources:

<http://www.sciencedaily.com/releases/2008/11/081111203503.htm>

<http://en.wikipedia.org/wiki/Mammogram>

<http://www.radarmedicalimaging.com.au/mri.htm>