



The Association of Minimally Invasive Gynecologic Surgeons

...dedicated to safe, state-of-the-art surgery and health life-styles for women of all ages

What's New in Breast Cancer Research?

Causes

Studies continue to find lifestyle factors and habits that alter breast cancer risk. Some are looking at the effect of exercise, weight gain or loss, and diet on breast cancer risk. We are learning more about how genes influence breast cancer. There should be rapid progress now that the human genome has been sequenced.

Perhaps the most important finding, though, has been that combined hormone replacement therapy (not estrogen alone) for women after menopause increases the risk of developing breast cancer.

A large, long-term study is now going on to help find the causes of breast cancer. It is known as the Sister Study and it will follow 50,000 women whose sisters (not they themselves) have had breast cancer. Over 10 years, information will be gathered on many factors that might cause breast cancer. If you want to find out more about the Sister Study, you can call 1-877-4-SISTER or visit the Web site at www.sisterstudy.org.

Prevention

Studies are also going on to look at ways to prevent breast cancer in women with certain risk factors. Studies of drugs such as tamoxifen, raloxifene, and others are expected to lead to ways to prevent many breast cancers.

MRI and Breast Biopsy

A new biopsy method now uses MRI to take many samples through one small incision. This approach is being studied in women who have a history of breast cancer, who have breast cancer in their families, or women with dense breast tissue.

Reconstruction

Advances in reattaching blood vessels (microvascular surgery) have led to improvements in breast reconstruction. Also, a new procedure known as skin-sparing mastectomy works as well as the usual type of modified radical mastectomy for many women. It results in less scar tissue and a more natural-looking breast.

Research has shown that women who have breast implants as a method of breast reconstruction do not have any greater risk for immune system diseases than women who have not had this surgery. Also, breast implants have not been shown to increase the risk of the breast cancer coming back or of a new cancer forming.

Treatment

Recent work suggests that giving chemotherapy more often (every 2 weeks rather than every 3 weeks) may work better in preventing the cancer from coming back.

Monoclonal antibodies are a special type of protein produced by immune system cells. They can be made in the lab. One type, trastuzumab (Herceptin), works by preventing a certain protein from causing too much growth of cancer cells. It might also help the immune system fight the cancer. Other monoclonal antibodies are also being tested.

In order for cancers to grow, blood vessels must be formed to "feed" the cancer cells. Some studies have found

that breast cancers with many new, small blood vessels are likely to spread more quickly. New drugs are being produced that may be useful in stopping breast cancer growth by keeping new blood vessels from forming. Several of these drugs are now being tested in clinical trials.

Research

One puzzle of breast cancer is that doctors cannot always tell which women have a higher risk that their cancer will come back. That is why most women have some sort of treatment after surgery. To help decide which women really need more treatment, scientists are looking at the genes in breast cancer cells. They have been able to link certain patterns of genes with cancers that are more likely to spread. Studies have just begun to see if some women could avoid more treatment after surgery.