HealthManagement
Promoting Management and Leadership

Volume 11 - Issue 1, 2011 - Research News

Dutch Study Publishes Results

The survival rate of women with hereditary predisposition to breast cancer substantially increases if they are screened using MRI. This scan detects twice as many tumours as a mammogram does and detects the tumours at an early stage. Early detection can in many cases prevent cancer metastasis. This is the result of a large Dutch study by six academic institutions and cancer centres, led by Erasmus MC. The researchers published their findings in the Journal of Clinical Oncology. It is the largest and longest running study ever carried out in this area.

About 15 to 20 percent of women diagnosed with breast cancer have a family history of breast cancer. This can be the result of a congenital anomaly (mutation) in one of the breast cancer genes (BRCA1 and BRCA2). Women with this gene defect have a greatly increased risk (50 to 85 percent) of developing cancer. There are also people who may be at an increased risk even though a gene defect was not detected. They are divided into two risk groups: people with a high risk (30 to 50 percent) and women with a moderately increased risk (15 to 30 percent). The researchers tried to determine the best method to detect tumours in these risk groups and which screening tool gives the best long-term results.

MRI scans appear to detect tumours better than mammography in all people (with an increased risk of breast cancer). On average, the MRI scan saw 77 percent of the tumours while 35 percent were detected using mammography. The MRI performed best for women with the breast cancer gene BRCA1. The scan showed tumours in 66.7 percent of these people while mammography only detected a quarter of the tumours. "Particularly for this group it is important that the best detection method is selected at the star t as the tumours often manifest at a young age and are more often aggressive", says Jan Klijn, Professor of Internal Oncology at Erasmus MC.

Patients live longer with improved cancer detection. Six years after diagnosis, 93 percent of the people who had been diagnosed with a tumour were still alive. This figure is almost 20 percent higher than in studies in which people were not screened using an MRI scan. Metastasis also occurred less often. In fact, among the breast cancer patients without a gene defect no one had metastasis and no one died as a result of the disease. The researchers propose that people with a family history should have an MRI screening annually. "For people with the gene abnormality BRCA1 we should even consider having them screened twice a year. They have the greatest risk of a tumour developing between two scans", says Klijn.

A total of 2,157 women with a higher risk of breast cancer were examined for the study. It is the largest study ever carried out in this field. Six academic and cancer centres participated in the research, namely, Erasmus MC, NKI/AvL (Netherlands Cancer Centre/ Antoni van Leeuwenhoek Hospital), Leiden UMC, UMC St Radboud, VU University Medical Centre and UMC Groningen. Previous research by these centres had already shown that MRI scans scored well in detecting breast cancer. However, these studies had not looked at mor tality rates, chances of metastasis and the results of the MRI scans for the different risk groups.

Published on : Mon, 28 Feb 2011