



#RSNA18: Overweight women need frequent mammograms



In a study presented during the annual meeting of the Radiological Society of North America (RSNA) in Chicago, researchers found that overweight women are at increased risk of missing to discover a breast tumor until it has grown too large. The results show that women with a higher measure of body fat based on height and weight (BMI) might need to get mammography screening exams more frequently.

Although higher BMI measure (overweight defined as a BMI of 25 or over) has been linked with various serious health risks including diabetes and heart disease, it has not been examined as a part of breast cancer screening.

You may also like: [Study: Fewer recalls mean higher interval cancer rates](#)

For the purposes of this research, co-author of the study Dr. Fredrik Strand and his colleagues at the Karolinska Institutet in Sweden analysed 2,012 invasive breast cancer cases that were detected from 2001 to 2008 and followed the progression of the disease in these patients as it related to breast density and BMI until the end of 2015.

The researchers wanted to find risk factors correlated with tumors that had not been detected until having grown larger than 2 centimeters and study the implications this has for long-term prognosis. The specific tumor size studied is of great importance as at 2cm or larger, the size constitutes one of the main parameters used to distinguish between stage I and stage II cancers and strongly associated with prognosis, according to Dr. Strand.

They found that in cancers detected during the screening, finding a large tumor was associated with breast density and BMI. What they discovered for cancers detected within the two year interval of a normal mammography screening and for interval cancers was that only BMI was linked with having a large tumor. While breast density showed no significant link with the disease progression, the women that had a higher BMI presented with a worse prognosis than the women with lower BMI among interval cancers.

The study findings provide more information for physicians and patients when deciding optimal screening approaches, said Dr. Strand.

"Our study suggests that when a clinician presents the pros and cons of breast cancer screening to the patient, having high BMI should be an important 'pro' argument," he said. "In addition, our findings suggest that women with high BMI should consider shorter time intervals between screenings."

In addition to the risk of larger interval cancers, women with high BMI face further risk for a worse prognosis, including the molecular composition of the tumors themselves and the hormone receptor expression levels that make them more difficult to treat, Dr. Strand added.

This study was conducted in Sweden where there are 18 to 24 month intervals between screenings, longer than the 12 months recommended by certain U.S. organisations such as the American Cancer Society, but shorter than the 24 month screening period recommended by the United States Preventative Services Task Force (USPSTF). The study also notes there are fewer women with high BMI in Sweden than in the U.S.

As a next step Dr. Strand wants to continue his research to examine the association of breast density with delayed detection. Further in the future he wishes to study artificial intelligence as a tool to triage mammographic screening exams and categorize them based on breast cancer risk and the ability to detect a potential tumor.

Source: [RADIOLOGICAL SOCIETY OF NORTH AMERICA](#)

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