乳がんリスクは加齢に伴う乳房密度の変化と関連する（Abstract: SSJ01-03）

一部の女性における加齢に伴う乳房密度の変化率が乳がんリスクに影響する可能性がある

The rate at which breast density changes in some women as they age may affect their breast cancer risk

若年女性において自動乳房密度測定は乳がんリスクの予測因子であり、一部の女性においてリスクは加齢に伴う乳房密度の変化率に関連するとの研究結果が2013年Radiological Society of North America年次集会で発表された。研究者らは若年女性と高齢女性の乳房密度とがんリスクを比較し、リスクが経時的な乳房密度変化にどのように関連するかを解析した。スタディ対象は乳がん282症例および健康なコントロール317人であり、フルフィールドデジタルマンモグラフィーを施行され、乳房密度は自動ボルメトリックシステムを用いて別に測定された。したがって、再現性のある客観的な定量的密度計測を行うことができた。乳がん患者は最高50歳の健康な参加者よりもマンモグラフィー上の密度が高かった。健康なコントロールは乳房密度が年齢とともに直線的に有意に低下したが、乳がん患者では乳房密度の減少にかなりばらつきがあった。マンモグラフィー上乳房組織密度が高い女性に関してはより短い間隔で追跡し、MRIや超音波などの他の画像も用いてがんの早期発見および治療を行うことが望ましい、と筆者らは述べている。

Full Text

Automated breast density measurement is predictive of breast cancer risk in younger women, and that risk may be related to the rate at which breast density changes in some women as they age, according to research presented at the 2013 annual meeting of the Radiological Society of North America (RSNA).

Breast density, as determined by mammography, is already known to be a strong and independent risk factor for breast cancer. The American Cancer Society (ACS) considers women with extremely dense breasts to be at moderately increased risk of cancer and recommends they talk with their doctors about adding magnetic resonance imaging (MRI) screening to their yearly mammograms.

"Women under age 50 are most at risk from density-associated breast cancer, and breast cancer in younger women is frequently of a more aggressive type, with larger tumors and a higher risk of recurrence," said the study's senior author, Nicholas Perry, M.B.B.S., FRCS, FRCR, director at the London Breast Institute in London, U.K.

For the new study, Dr. Perry and colleagues compared breast density and cancer risk between younger and older women and analyzed how the risk relates to changes in breast density over time. The study group included 282 breast cancer cases and 317 healthy control participants who underwent full-field digital mammography, with breast density measured separately using an automated volumetric system.

"In general, we refer to breast density as being determined by mammographic appearance, and that has, by and large, in the past been done by visual estimation by the radiologist—in other words, subjective and qualitative," Dr. Perry said. "The automated system we used in the study is an algorithm that can be automatically and easily applied to a digital mammogram, which allows an objective and, therefore, quantitative density measurement that is reproducible."

Breast cancer patients showed higher mammographic density than healthy participants up to the age of 50. The healthy controls demonstrated a significant decline in density with age following a linear pattern, while there was considerably more variability in density regression among the breast cancer patients.

"The results are interesting, because there would appear to be some form of different biological density mechanism for normal breasts compared to breasts with cancer, and this appears to be most obvious for younger women," Dr. Perry said. "This is not likely to diminish the current ACS guidelines in any way, but it might add a new facet regarding the possibility of an early mammogram to establish an obvious risk factor, which may then lead to enhanced screening for those women with the densest breasts."

For instance, some women might undergo a modified exposure exam at age 35 to establish breast density levels, Dr. Perry noted. Those with denser breast tissue could then be followed more closely with mammography and additional imaging like MRI or ultrasound for earlier cancer detection and treatment.

"It has been estimated that about 40 percent of life years lost to breast cancer are from women under 50 diagnosed outside of screening programs," Dr. Perry said. "In my practice, which is largely composed of urban professional women, 40 percent of cancers year to year are diagnosed in women under 50, and 10 percent in women younger than 40."

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RSNA2013特集

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