

NEGLIGIBLE ADVANTAGES AND EXCESS COSTS OF ROUTINE ADDITION OF BREAST ULTRASONOGRAPHY TO MAMMOGRAPHY IN DENSE BREASTS

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Aim: To assess the role of breast ultrasonography as a complement to negative mammography in radiologically dense breasts.

Material and methods: Out of a total series of 49,044 consecutive mammograms reported as negative in asymptomatic women, 25,665 (52.3%) were coded as dense (BI-RADS D3-4) and ultrasonography was recommended. Due to organizational problems, ultrasonography was performed immediately or within 1 month only in 5,227 cases, representing the study series.

Results: Two cancers were detected at immediate ultrasonography (0.03%). The cancer detection rate in women aged 40-49 and 50-69 years was 0.002% and 0.07%, respectively. The benign biopsy rate was 0.5% for core biopsies and 0.02% for surgical biopsies. The cost per ultrasonography-assessed woman

was € 56.05, whereas the cost per additional mammographically occult but ultrasonography-detected cancer was € 146,496.53. The mammograms of the 2 cancer cases underwent blind review by an expert reader and were confirmed as negative.

Discussion: Our findings show a low cancer detection rate, substantially lower compared to other clinical studies of ultrasonography in dense breasts, though in accordance with preliminary evidence from an Italian randomized clinical trial within a population-based screening program. The policy of adding ultrasonography to negative mammography in dense breasts seems to have very limited cost-effectiveness, and should not be adopted in routine practice before results of ongoing clinical trials are available.

Key words: breast cancer, mammography, radiologically dense breast, screening, ultrasonography.