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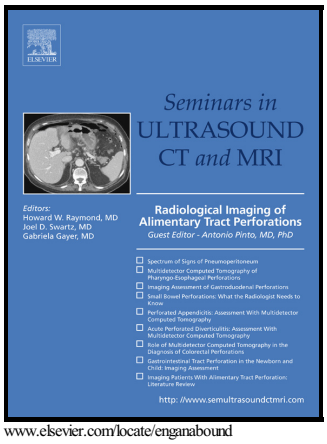

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Abstract

Mammography is the gold standard for breast cancer screening. However, with increasing awareness among patients and health care providers of mammography limitations especially in dense breasts, supplemental screening for breast cancer with ultrasound and MRI has been expanding. The roles of both in screening need to be reexamined. This article reviews the efficacy, utility and feasibility of ultrasound as a screening tool for the early detection of occult breast cancer.

Introduction

Screening whole breast ultrasound is being more widely utilized as a supplemental screening tool in addition to mammography. Multiple randomized controlled trials (RCT) (1-3) prove that routine screening mammography in women over age 40 years can detect early breast cancer and decrease breast cancer mortality by over 30% (1). However, mammography is an imperfect test and is especially limited by dense breast tissue. Dense breast tissue may mask an underlying tumor and therefore decreases mammographic sensitivity. Moreover, dense breast tissue is an independent risk factor for breast cancer. Compared to women with predominately fatty breast tissue, women with dense breast tissue have a 4-6 fold increased breast cancer risk. (4-7)

There are currently over 30 states in the United States with breast density notification laws, with the first law passed in Connecticut in 2009. (8) This successful state-by–state