

Potential Cost Savings of Contrast-Enhanced Digital Mammography

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 AJR:208, June 2017 (1-7) – DOI:10.2214/AJR.16.17239

Objective

The article first compares the sensitivity and specificity of contrast-enhanced digital mammography (CEDM) to breast MRI. The next portion lays the foundation for CEDM as a diagnostic alternative to breast MRI based on cost, equipment, and patient access to these modalities.

Method

The authors reviewed and identified five previously published studies that demonstrate the increase of sensitivity and specificity of CEDM compared to Full Field Digital Mammography (FFDM), the CEDM vs. MRI or FFDM plus breast ultrasound. Also included is data, from their institution, representing results of 97 of 99 pathologically proven cancers from the procedure of CEDM

Discussion

With the sensitivity and specificity of CEDM to MRI being similar as well as images are of the same quality, the authors map out the cost comparison of both procedures based on quality, overall cost of care, health care access, and patient comfort. The cost comparison is based on 2015 Medicare costs for diagnostic imaging. The table below represents the standard costs for screening and diagnostic imaging. Screening MRI requires a FFDM examination prior to the MRI examination.

Charge	Screening			Diagnostic		
	FFDM	FFDM + MRI	CEDM	FFDM	MRI	CEDM
FFDM	\$179.10	\$179.10				
Diagnostic			\$179.10	\$179.10		\$179.10
Breast MRI		\$586.10			\$586.10	
Breast MRI CAD		\$150.00			\$150.00	
Gadolinium contrast		\$39.00			\$39.00	
Iodinated contrast			\$17.00			\$17.00
Totals	\$179.10	\$954.20	\$196.01	\$179.01	\$775.10	\$196.01

Values are U.S. dollars

Results

Not only was there a cost savings with CEDM procedures, patient accessibility was better because the number of mammography systems that can be potentially upgraded to CEDM. Workflow, procedure time, and staffing is much better with CEDM compared to breast MRI. Time for interpretation of CEDM was estimated at 1-2 minutes compared to 3-10 minutes for bMRI according to the authors.



Conclusions

The authors concluded that CEDM procedures are a cost-effective modality with the potential to be used for routine screening and could be a much less expensive alternative to breast MRI.

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