

**Table 1s. Summary of the histological results**

Histological result	Overall (N=377)
Acinic cell carcinoma	2
Adenosis	11
Atypical ductal hyperplasia (DIN1b)	6
Atypical lobular hyperplasia (LIN1)	5
Breast fibroadenoma	10
Cribiform carcinoma	2
Ductal hyperplasia without atypia	6
Fibocistic disease	1
Fibroadenoma	2
Fibrocystic breast disease	55
Fibrosis	5
Flat epithelial atypia	3
Flogosis	7
High grade ductal carcinoma in situ (DIN3)	9
Intermediate grade ductal carcinoma in situ (DIN2)	18
Intermediate grade lobular intraepithelia neoplasia (LIN2)	1
Intraductal papilloma	6
Invasive cribiform carcinoma	2
Invasive ductal carcinoma	163
Invasive lobular carcinoma	33
Invasive mixed carcinoma	1
Lobular intraepithelial neoplasia (LIN2)	4
Low grade ductal carcinoma in situ (DIN1c)	7

Malignant phylloid	1
Micropapillary carcinoma	1
Mixed ductal and lobular carcinoma	9
Mucinous carcinoma	1
Mucocele like lesion	1
Papillomatosis	1
Pseudoangiomatous stromal hyperplasia (PASH)	1
Radial scar	3

**Table 2s. Distribution of different enhancements and biopsy or surgery histological result (gold standard) (N=377)**

		Histological result			
Enhancements		Benign lesion	Malignant (In situ) lesion	Malignant (Invasive) lesion	Total
Intensity	Benign lesion	116	15	38	169
	Malignant lesion	12	17	179	208
Margin morphology	Benign lesion	115	9	20	144
	Malignant lesion	13	23	197	233
Pattern	Benign lesion	121	11	31	163
	Malignant lesion	7	21	186	214
Ground glass	Benign lesion	117	13	33	163
	Malignant lesion	11	19	184	214
Enhancement score ≥ 2	No, Benign lesion	115	8	11	134
	Yes, Malignant lesion	13	24	206	243
	<b>Total</b>	128	32	217	377

**Table 3s. Phi Coefficient among CESM enhancements (Benign vs. Malignant)**

Enhancements	Intensity	Margin morphology	Pattern	Ground glass
Intensity		0.62	0.65	0.94
Margin morphology	0.62		0.76	0.67
Pattern	0.65	0.76		0.68
Ground glass	0.94	0.67	0.68	

**Figure S1. ROC curve of the model with score enhancements as independent variable and histological result (Benign vs. Any malignant) as dependent variable**

