Evaluating Idiopathic Granulomatous Mastitis Using Inflammatory Breast Cancer Scoring System: Comparative Study Highlighting Pain as a Diagnostic Criterion

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Introduction

Idiopathic granulomatous mastitis (IGM) is an inflammatory condition which has similar characteristics to inflammatory breast cancer (IBC). We sought to utilize the published IBC scoring system to compare scores between patients diagnosed with IBC and GM.

Methods

- Retrospective chart review from Jan 2014-Sept 2025) of patients with biopsy proven IGM and IBC
- IBC scoring system[1] was used, which included 6 of the 7 reported criteria: timing of symptoms, skin changes, breast swelling, erythema, nipple abnormalities, and breast imaging findings. Lymphatic tumor cell emboli biopsy results were excluded from GM patients, and the maximum modified score was 42.
- Pain score (1–10) analyzed separately
- Statistical analysis by T-test

Results

- 8 patients with IBC compared with 77 patients with GM.
- IBC patients had higher average score of 21.5 vs 17.9
- GM patients had significantly higher average pain reported than those with IBC (7.8 vs 2.3, p= .00008)

Figure 1: GM and IBC Patients by Score Category

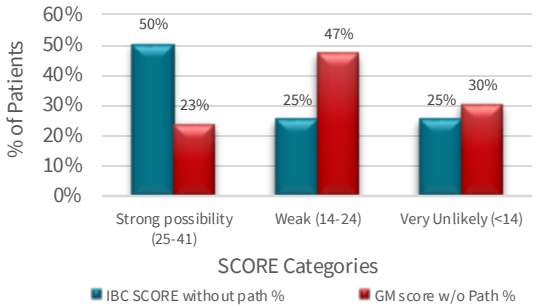


Table 1: Comparison of IBC scores

Score Category	IBC score w/out Path		IBC score (w/path)		GM score w/o path		P value Compared with IBC w/o Path	P value compared to IBC w/path
	n	Score *(mean)*	*n*	Score *(mean)*	*n*	Score *(mean)*		
Strong possibility	4	29	4	30	18	28.1	0.62	0.29
Weak	2	16.5	3	18.3	36	19.3	0.17	0.56
Very unlikely	2	12.5	1	13	23	8.6	0.13	NA
Total score	8	21.5	8	23.5	77	17.9	0.22	0.0067
Pain scale (0-10)	8	2.3	-	-	77	7.8	**0.0008**	

Scoring categories

- Definitely IBC (≥ 42)
- Strong Possibility (25–41)
- Weak Possibility (14–24)
- Not IBC (< 14)

Conclusions

- Patients with IGM present with similar characteristics to IBC.
- When utilizing the IBC scoring system for diagnosis, GM patients had similar scores as those with IBC.
- Most had scores in either weak or strong possibility of IBC categories.
- Most significant difference was the maximum pain reported by the patients.
- Given this similarity, we propose a new scoring criterion with the inclusion of pain for prediction of GM

1. Jagsi, R., Mason, G., Overmoyer, B.A. *et al.* Inflammatory breast cancer defined: proposed common diagnostic criteria to guide treatment and research. *Breast Cancer Res Treat* **192**, 235–243 (2022).

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