



# Impact of *Mammographic Breast Density* on BI-RADS Assessment and Breast Cancer Detection in Women Presenting to the Breast Clinic of Sir Ganga Ram Hospital

Poster ID.

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314

consecutive women

69.4%

screening (n = 218)

11.5%

dense breasts (n = 36)

2×

BI-RADS 4/5 in dense

## 01 Background

Mammographic breast density is an established, independent risk factor for breast cancer. It also masks lesions on mammography, so suspicious findings may be missed, affecting patient management<sup>1</sup>.

## 02 Objective

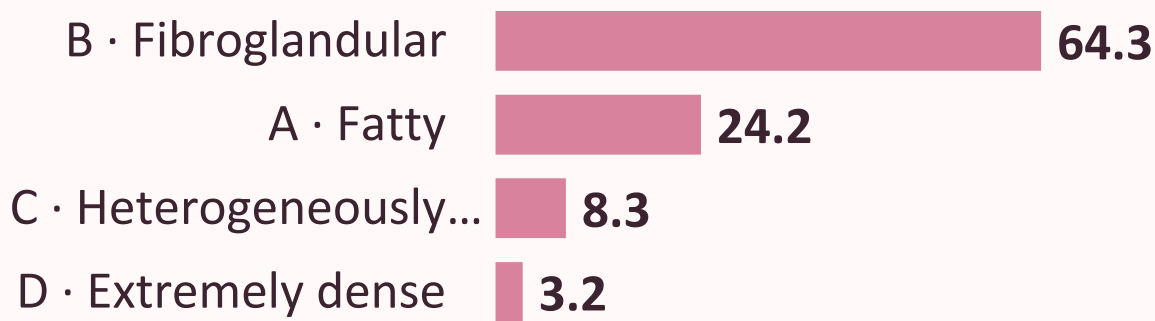
To evaluate the distribution of ACR breast density categories and assess their impact on BI-RADS assessment categories and on histopathologically confirmed breast cancer detection.

## 03 Methods

- **Design:** cross-sectional observational study
- **Population:** 314 consecutive patients at the Breast Clinic, Sir Ganga Ram Hospital
- **Grouping:** ACR BI-RADS 5th Ed. density A–D<sup>2</sup> and final BI-RADS 1–5
- **Variables:** presentation, age, BMI, risk factors, histopathology

## 04 Results

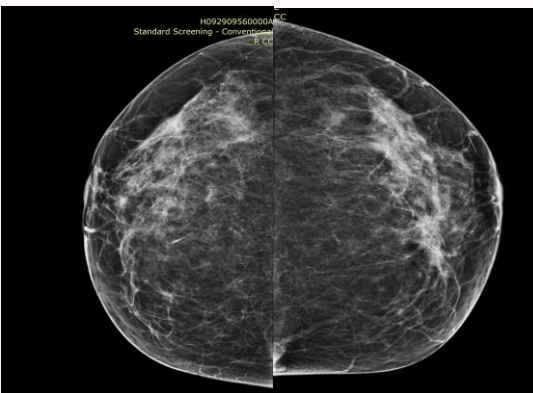
### GRAPH 1 · ACR DENSITY, % OF 314



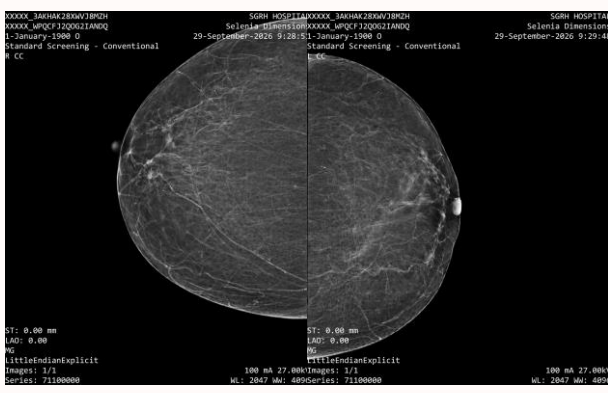
### OUTCOMES BY DENSITY

P = 0.014

|                  | Dense (C+D)<br>n = 36 | Non-dense (A+B)<br>n = 278 |
|------------------|-----------------------|----------------------------|
| BI-RADS 4/5      | 38.9% (14)            | 19.4% (54)                 |
| Cancer on biopsy | 16.7% (6)             | 10.8% (30)                 |



Dense breast



Non dense breast

05

## Conclusion

Higher mammographic density is **significantly associated with higher-risk BI-RADS assessment** (p = 0.014).

Because dense tissue masks lesions, **structured use of supplementary imaging** — handheld ultrasound or tomosynthesis — is needed to optimise diagnostic sensitivity in dense breasts.

## REFERENCES

1. Boyd NF, Martin LJ, Yaffe MJ, Minkin S. Mammographic density and breast cancer risk: current understanding and future directions. *Breast Cancer Res.* 2011;13(6):223.
2. American College of Radiology. *ACR BI-RADS Atlas: Breast Imaging Reporting and Data System.* 5th ed. Reston, VA: American College of Radiology; 2013.