ASSOCIATION OF RADIOLOGICAL FEATURES WITH BRCA RELATED GENETIC MUTATIONS; A 10 YEAR RETROSPECTIVE STUDY AT SHAUKAT KHANUM MEMORIAL HOSPITAL.

DR MAMOONA MURAD, DR FATIMA S AHMAD, DR MEHRIA KHAN, DR ZAINAB RAHIM, DR M AWAIS.

OBJECTIVE:

The purpose of this study is to retrospectively evaluate the varying radiological and epidemiological features in histopathologically diagnosed breast carcinoma patients with the *BRCA* genetic mutation.

STUDY DESIGN:

Retrospective, cross-sectional study.

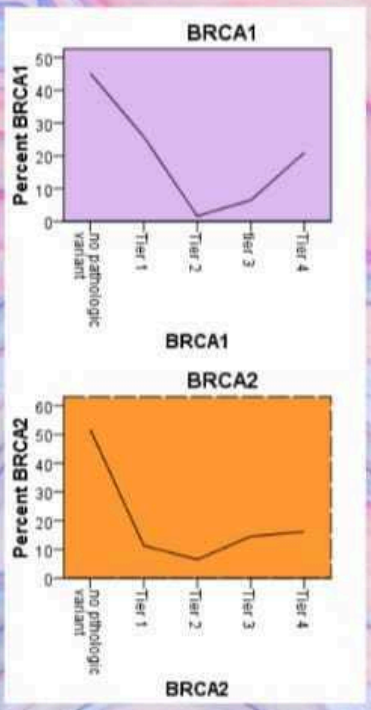
Purposeful sampling

Retrospective data collection from Hospital Management Information System from Sept 2025 to Jan 2015

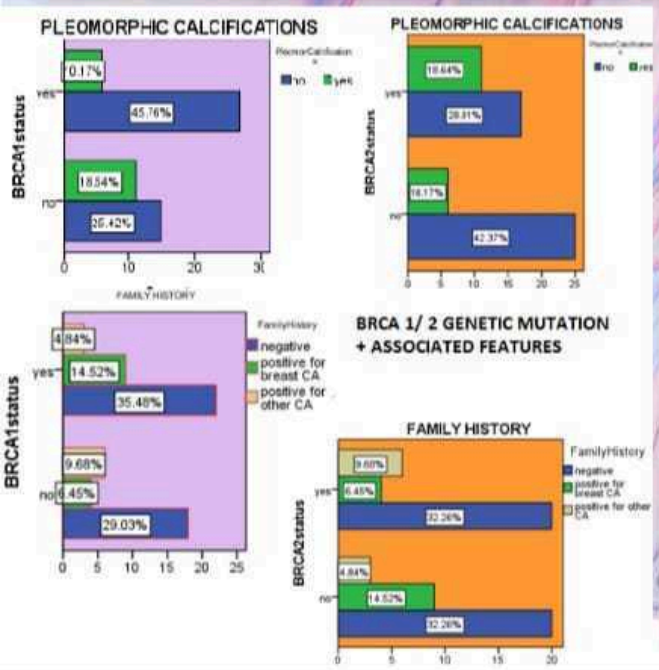
INCLUSION CRITERIA:

Biopsy proven breast cancer patients, radiologically imaged at SKMH with BRCA genetic mutation.
Patients of both genders.

EXCLUSION CRITERIA: Patients testing positive with BRCA genetic mutation, but presented for screening purposes.

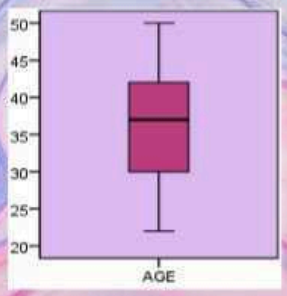


RESULTS: Data of 62 patients included in study, all female.
Age range from 22 years to 50 years with mean age 36.4 +/- 7.4 years.
Single lesion in 45 (72.6%) patients and multifocal in 17 (27.4%) patients.
Family History positive for breast CA in 13 (21%) and positive for other CA in 9 (14.5%).
Laterality: Right 35(56.5%) Left 27(43.5%)



Pleomorphic microcalcifications more frequent with BRCA 1 genetic mutaion

CATEGORICAL VARIABLE	FREQUENCY	PERCENTAGE
HISTOPATHOLOGICAL Dx		
Ductal CA in situ DCIS	3	4.8%
Invasive Ductal CA grade 1	0	0%
Invasive Ductal CA grade 2	18	29%
Invasive Ductal CA grade 3	40	64.5%
Poorly differentiated CA	1	1.6%
BRCA MUTATIION STATUS		
BRCA 1 only	31	50%
BRCA 2 only	29	46.7%
BRCA 1/2 both	2	3.3%



Conclusion:

Patients with BRCA genetic mutation present at earlier age.

FH +ve in 21% pts.
Pleomorphic Ca++ assoc with BRCA 1 genetic mutation.