

# Molecular Biology of Breast Cancer in the Africa with the study of Ductal Breast Carcinoma in Situ

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## Abstract

Casting-type calcifications and a histological image showing cancer-filled duct-like structures have been described as breast cancer with neoductogenesis. In a group of women with DCIS who had received a lot of follow-up, we associated histological neoductogenesis and mammographic characteristics with prognosis. According to Tabár, the characteristics of mammography were divided into seven classes. Lymphocyte infiltration, periductal fibrosis, and duct concentration were used to characterise histopathological neoductogenesis. IBE in situ and invasive occurrences were the endpoints. High nuclear grade, ER and PR negative, and HER2 overexpression were all associated with casting-type calcifications, but not with neoductogenesis or each other. Neoductogenesis and casting-type calcifications were both associated with a nonsignificantly decreased risk of invasive IBE, with corresponding HRs of 0.38 (0.13-1.08) and 0.82 (0.29-2.27); the respective HRs for an in situ IBE were 0.90 (0.41-1.95) and 1.60 (0.75-3.39). There is no evidence that DCIS patients with casting-type calcifications have a worse prognosis. We are unable to explain why a more severe DCIS phenotype did not indicate a worse prognosis. It is necessary to conduct more research on the factors that induce the transition from in situ to invasive cancer.

A recent classification of breast cancer into four unique molecular subtypes, each with a distinctive prognosis, targeted treatment options, and/or clinical outcomes, was made using gene expression profiling and its substitute immunohistochemistry (IHC) markers. In order to better understand the clinical pathological characteristics and taxonomy of the many molecular subtypes of breast cancer in Eritrea, in the Horn of Africa, preliminary research will be conducted. Twenty patients were female, and at the time of presentation, 68% of them were under 50 years old. Ninety percent were histological grade 3 invasive carcinomas of no particular type. The molecular subtypes were basal-like (10%), unclassified (5%), HER2 (5%), luminal A (55%) and luminal B (5%). (25%). 35 percent of women under 50 with grade 3 tumours had triple negative carcinoma (basal-like and unclassified combined), that was most common in these women (71 percent). Eritrean women experience breast cancer at a younger age and with a higher histologic grade. The triple negative and luminal a molecular subtypes are the two most common forms. For Eritrean women with breast cancer, knowing the molecular subtype via surrogate IHC markers has significant therapeutic and prognosis consequences.

**Keywords:** , [breast cancer](#) / [molecular biology](#) / [Africa](#) / [ductal breast carcinoma in situ](#)



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Data Analysis

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Results

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Discussion

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Conclusion

### Conclusion

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### Acknowledgment

Acknowledgment

### Conflict of Interest

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### References

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