

BREAST CANCER MOLECULAR SUBTYPES AND ITS CLINICOPATHOLOGICAL CORRELATION IN A NON-SUBSPECIALIZED HOSPITAL: A 7-YEAR RETROSPECTIVE CROSS-SECTIONAL STUDY

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Introduction

Breast cancer (BC) is the most common cancer in Malaysia. The immunohistochemical (IHC) determination of BC subtypes with regards to estrogen receptor (ER), progesterone receptor (PR), and human epidermal growth factor receptor (HER2) status contributes to an improved selection of treatment choices and patient care. In the past decade, the incidence of diagnosed BC have increased in Sarawak, the largest state in Malaysia. As we move forwards to an era of global surgery, we would like to look into the prevalence of BC subtypes and assess their associations with clinicopathological parameters for better treatment decisions in a non- subspecialized environment in Bintulu.

Status of Hormonal Receptor in BC ,% (n=109)

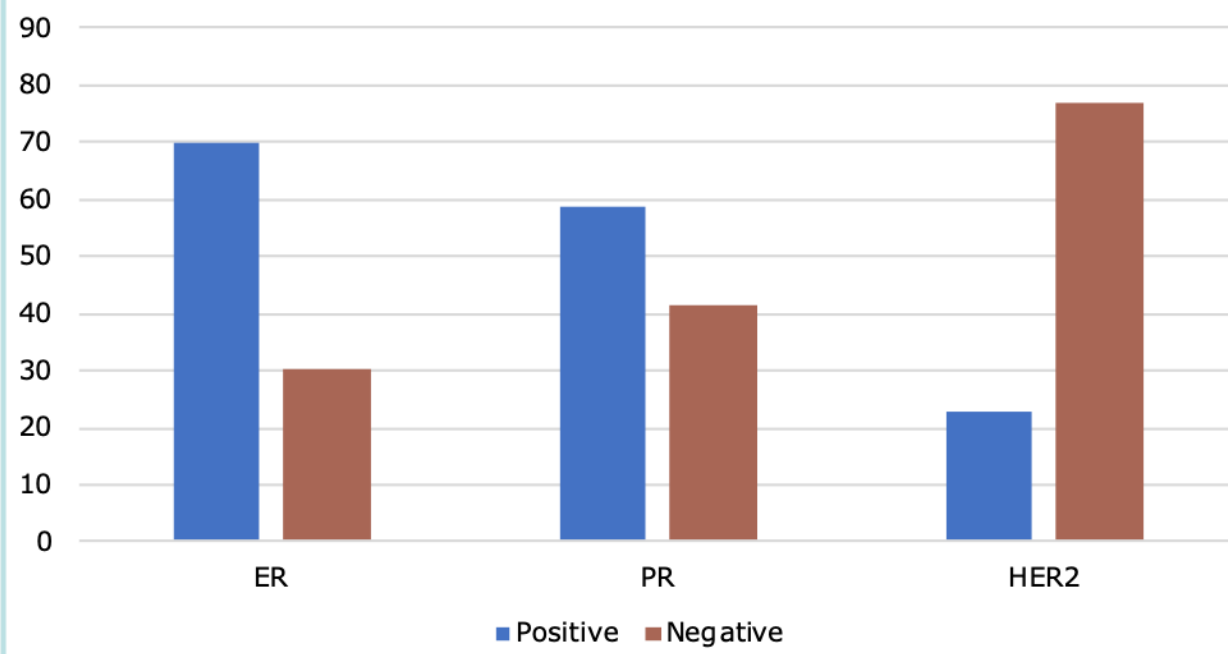


Figure 3: Hormonal receptor status of BC patients in Bintulu.

Results

Among 109 patients that were operated on, the mean age was 51.6 years. The indigenous population comprised of 71.6% and invasive ductal carcinoma (92.7%) was the most frequent histological type. **BC subtypes were closely correlated with age (p=0.018) and tumour grade (p=0.031).**

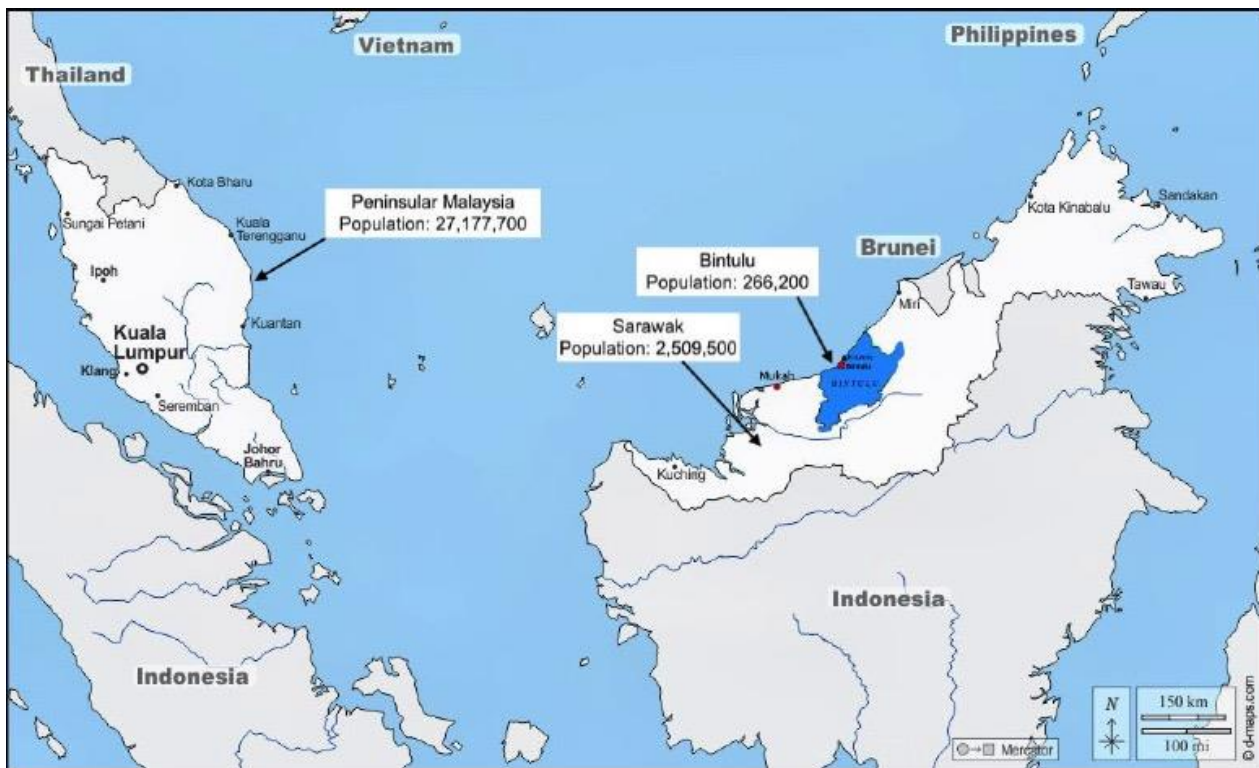


Figure 1: Bintulu, located in the central region of Sarawak, is the fourth largest division and covers four districts.

Methods

Retrospective cross-sectional study, including all BC patients who were operated on from January 2016 to December 2022. Two-way ANOVA test was used to evaluate the difference between BC subtypes and age. Fisher's Exact test was used to compare the clinicopathologic parameters with BC subtypes.

Tumour Grade at Presentation

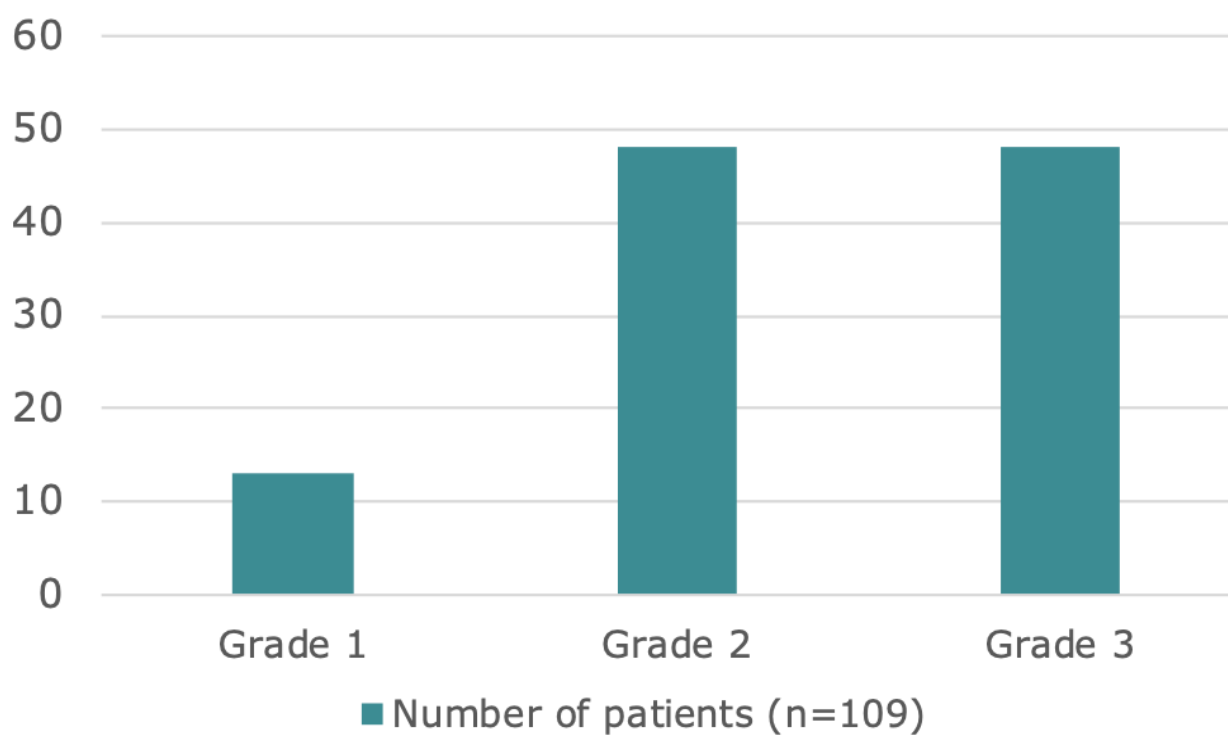


Figure 4: Tumour grade at time of presentation.

Ethnicity

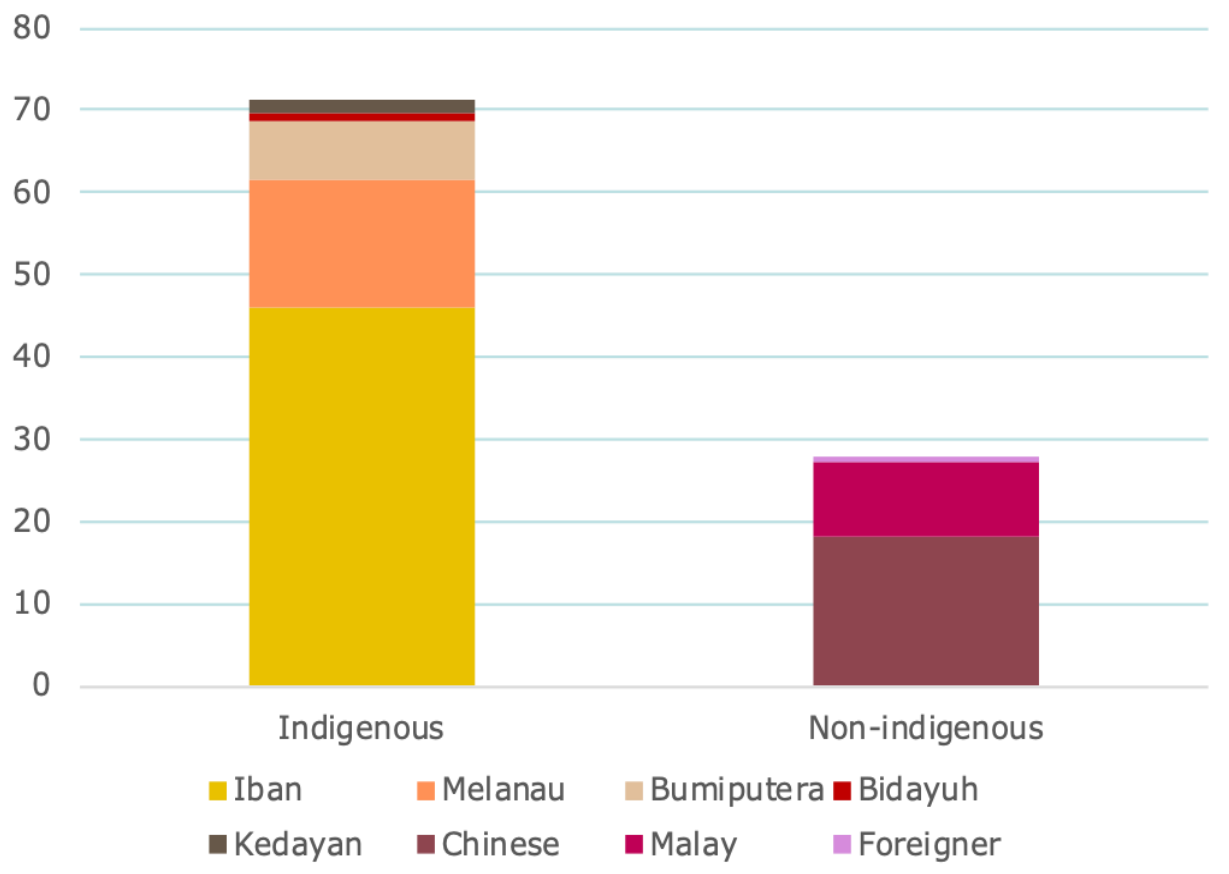


Figure 2: Ethnicity distribution of BC patients in Bintulu.

Molecular Subtypes

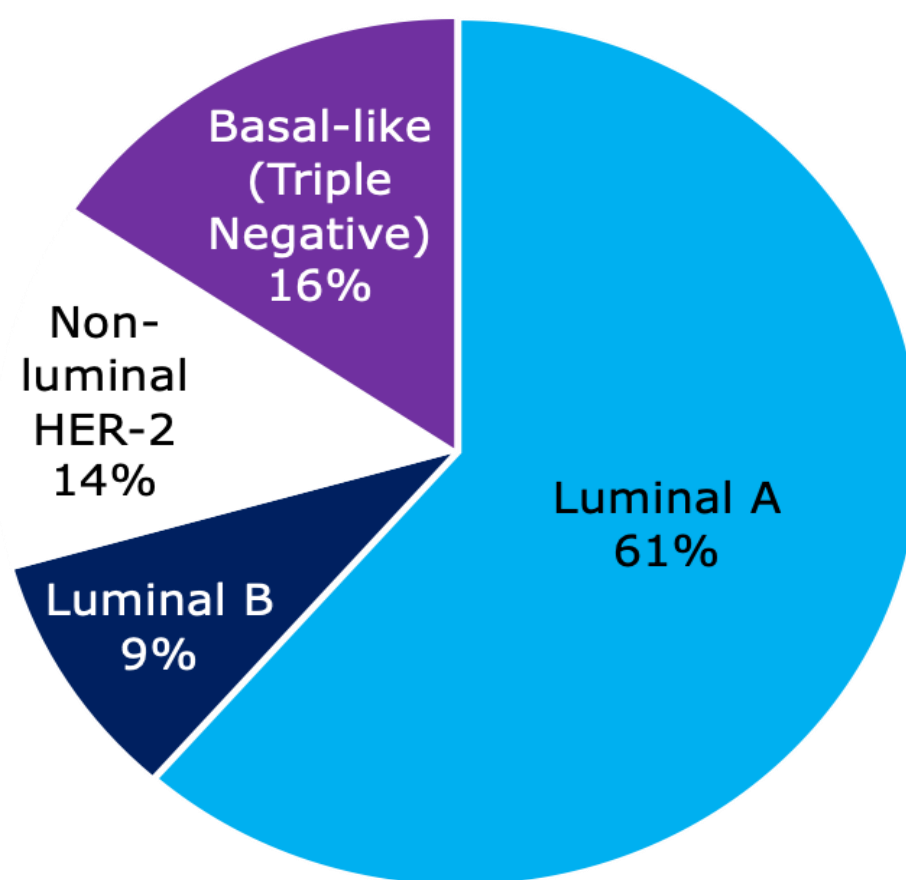


Figure 5: Distribution of molecular subtypes

Conclusion

The age of patients and tumour grade is significantly associated with BC subtypes. The findings of the present study are in line with the literature and should assist in treatment choices in a non-specialised clinical setting such as ours.