



Predictors of Pathological Complete Response (pCR) in Locally Advanced Breast Cancer After Neoadjuvant Chemotherapy

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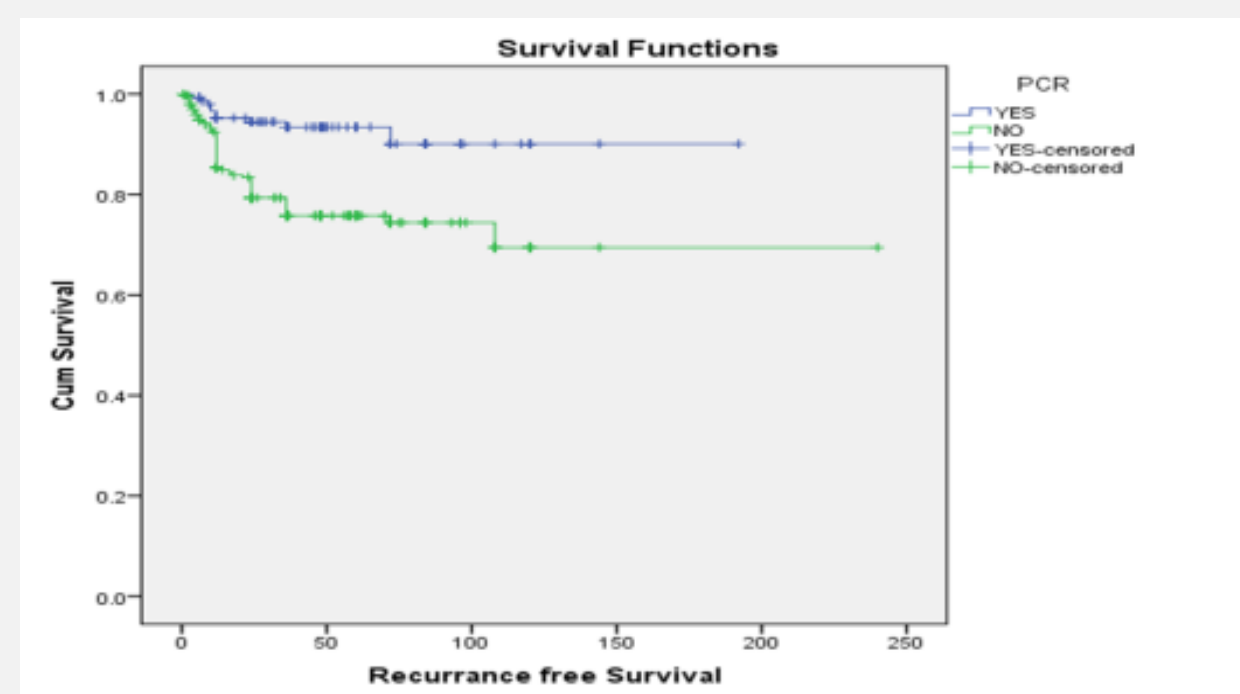
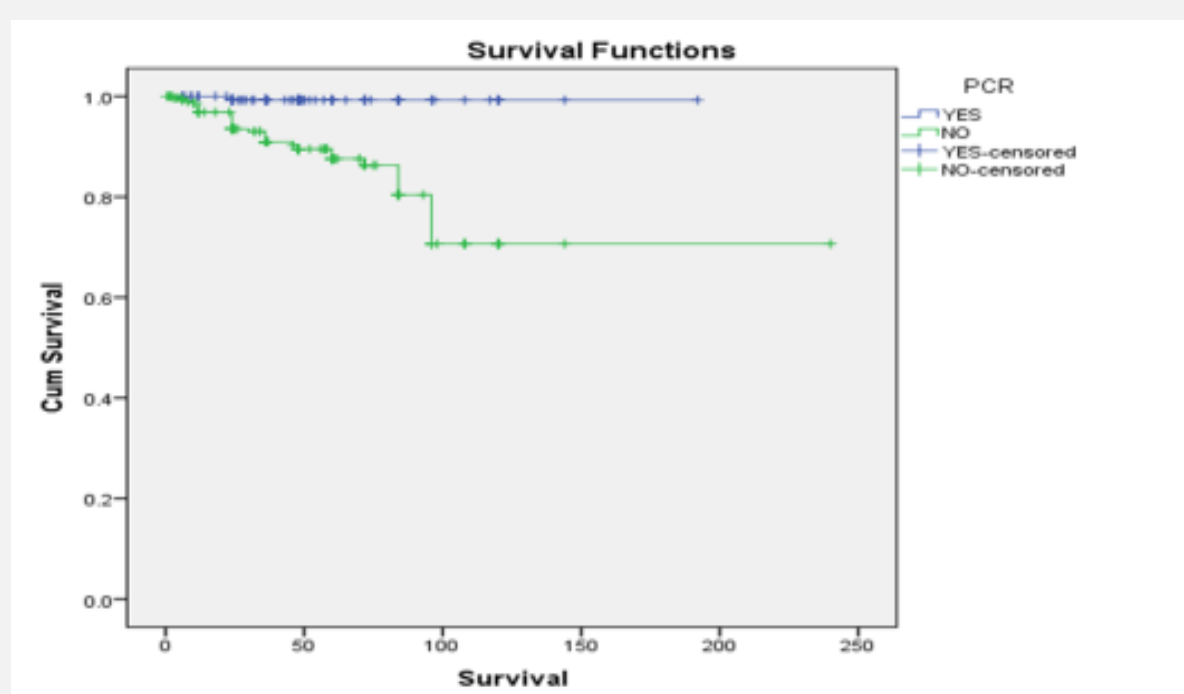
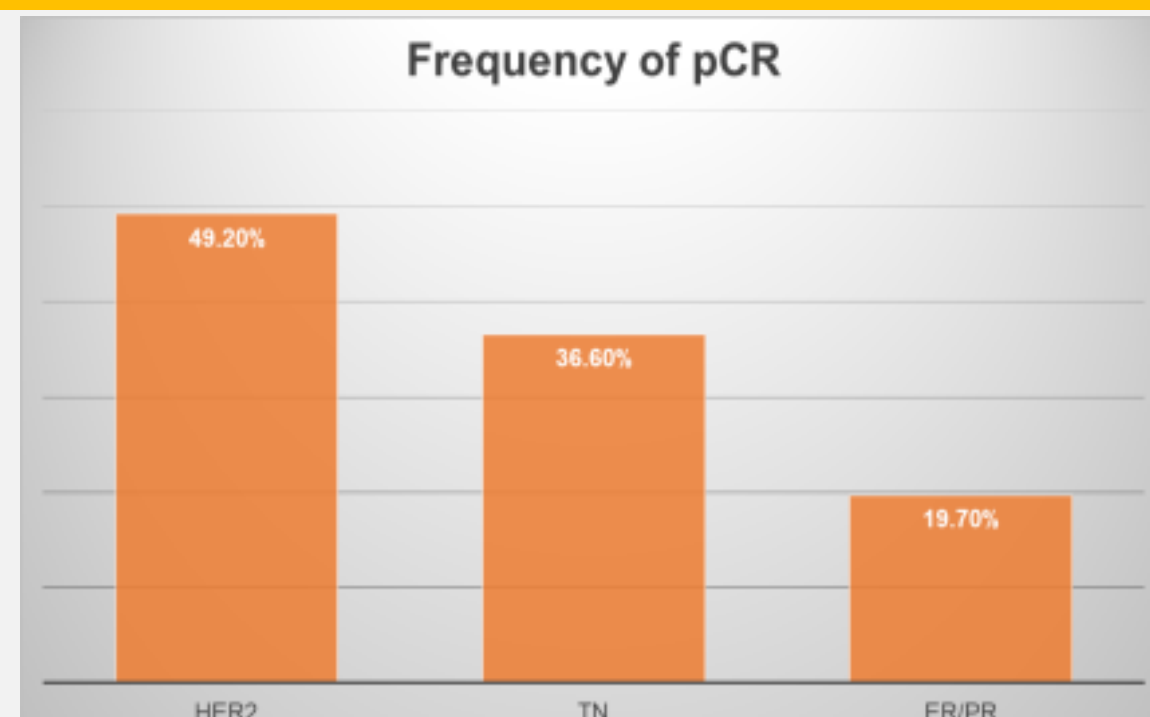
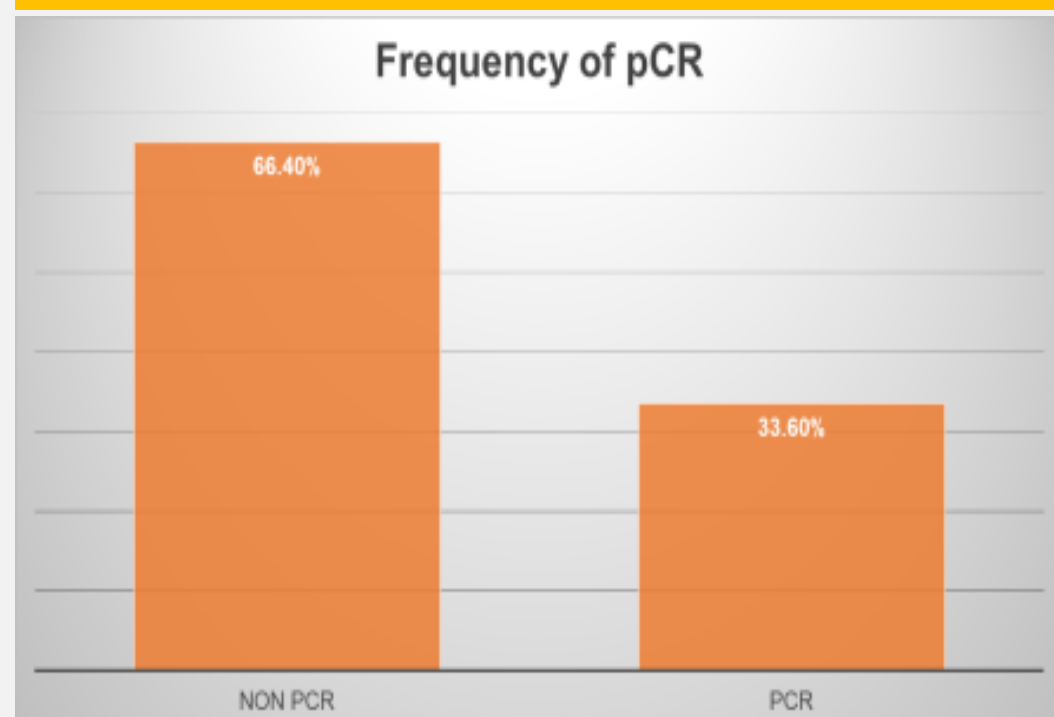
Introduction

- Majority of women in Pakistan present with locally advanced breast cancer (LABC).¹
- Achieving pCR following neoadjuvant chemotherapy (NACT) in LABC is associated with significantly better DFS and OS.² pCR ranges from 3.6% to 27.2% worldwide.³
- Our objectives are to determine frequency of pCR, factors associated with achieving pCR and effect of pCR on OS and RFS.

Methods

- Retrospective single review of 450 patients presented to Aga Khan University Hospital between 2015-2020 with LABC(Stage 2b – 3c) who received NACT.
- Data collected: demographics, Clinicopathological characteristics (age, histology, grade, tumour and nodal stage, ER/PR, HER2, Ki-67, BMI, chemotherapy regimen), last follow up date, recurrence date.
- Univariate analysis: chi square test or Fisher's exact test
- Survival analysis: Recurrence-free survival (RFS) and overall survival (OS) estimated using Kaplan–Meier method.

Results



Frequency of pCR – **33.6%**

T stage, tumor biology, Her2 neu positive subtype are associated with achieving pCR ($p < 0.001$)

3- and 5- years Recurrence free survival in pCR vs non pCR – **95% vs 80%** and **93% vs 75%** ($p < 0.001$)

3- and 5-years Overall survival in pCR vs non pCR – **99% vs 90%** and **99% vs 80%** ($p < 0.001$)

Conclusion

Tumour biology and stage are important predictors of pCR in locally advanced breast cancer. Achieving pCR after neoadjuvant chemotherapy is associated with favourable survival outcomes, highlighting its role as an important prognostic indicator.

References

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- Response to Neoadjuvant chemotherapy in patients with advanced breast cancer: A local hospital experience. *Asian Pac J Cancer Prev.* 2010