

## OP10

### **Clinico-pathological factors influencing the recurrence free interval of patients with recurrent breast cancer**

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**Objectives:** Clinico-pathological factors affect the prognosis of breast cancer (BC) reflecting the heterogeneity of the disease. Following initial treatment, there is an ongoing risk of recurrence. The influence of these prognostic factors on the time taken to develop recurrence is not well established. This study was designed to determine the effect of clinic-pathological factors on the recurrence free interval (RFI) of BC patients with recurrent disease.

**Methods:** This retrospective study included BC patients who had sought the immunohistochemistry laboratory services of our unit from May 2006 to December 2012. Mean follow up time was 45±23 months. All BC patients who had recurrences (loco-regional and distant metastasis) during the follow up period were enrolled. RFI was measured from the date of first therapeutic intervention to the date of confirmation of recurrence. Chi-square test was used for analysis.

**Results:** Out of 944 BC patients, 188(mean age 50±11 years), had recurrences (loco-regional =35, distant metastasis =153). More than 50% of them had recurrence within 24 months of initial treatment (local=18/35 and distant=81/153). Mean RFI was 33±21 months for oestrogen receptor (ER)/progesterone receptor (PR) positive BC and 22±16 months for ER/PR negative BC. ER/PR positive BCs had a significant upward trend in developing recurrences over time ( $\chi^2$  trend<0.001) while the rest had a downward trend. Other clinico-pathological factors were not associated with RFI. Majority (49/53) of the ER/PR positive BC patients had received hormone therapy and 179/188 BC patients had received chemotherapy.

**Conclusions:** ER/PR positive BC patients develop late recurrences while hormone receptor negative patients develop early recurrences depicting late and early treatment failure in respective groups.