

## **Role of Ki67 in predicting response to adjuvant tamoxifen in postmenopausal hormonal positive breast cancer patient**

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### **ABSTRACT**

**Background:** Breast cancer (BC) is a major health problem in Egypt and worldwide. Its prognosis depends not only on tumor stage but also on tumor biology.

**Aim of the Work:** To correlate the percentage of expression of Ki67 with the clinical outcomes of early hormone-receptor positive for postmenopausal breast cancer patients who are receiving adjuvant tamoxifen

**Material and Methods:** we retrospectively reviewed 52 patients treated for non-metastatic postmenopausal breast cancer with adjuvant tamoxifen at Ain-Shams University hospital, Clinical Oncology department between January 2010 and December 2015. Ki67 value and other clinicopathological data were retrieved.

**Results:** Out of 52 patients fulfilling research criteria, the age ranged from 45 to 71 years. All patients were stage 0-III. Stage II was the most common represented 38.5 %, while Stage 0 was the least common presents 3.8%. Using a ki67 cut-off value of 20, patients were stratified into two risk groups; the low risk group had ki67 <20 % and represented (67.3%) of cases and the high risk group were  $\geq 20\%$  and represented 32.7%. The median Ki67 value was 12.00 (IQR 5 – 20). Median DFS was 42.5 months (IQR 31.2 – 57). Median of OS was 49 months (IQR 34 – 58). Among multiple prognostic factors Stage, luminal A subtype was significantly related to better OS and DFS. In our study, there was no difference regarding OS and DFS between low and high ki67 group's results  $p=0.308$  and  $p=0.064$  respectively.

**Conclusion:** Ki67 is not a predictive factor for resistance to adjuvant tamoxifen in post-menopausal female breast cancer patients.

**Keywords:** : Breast cancer; Adjuvant hormonal therapy; Tamoxifen, ki67