Ki-67 As Predictive and Prognostic Factor for Node-negative, Hormone-positive Breast Cancer in Ramathibodi Hospital

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**Background:** To explore the value of Ki-67 label index as a prognostic factor and predictive marker for the benefit of adjuvant chemotherapy versus hormonal therapy in lymph node negative, hormonal positive early breast cancer in Ramathibodi hospital.

**Method:** We conducted a retrospective case-control study assigned 53 patients of invasive ductal carcinoma breast cancer with tumor size 0.5-5 cm, negative nodal status and positive for ER or PgR who underwent surgical resection at Ramathibodi hospital from Jan 1, 2006 to Dec 31, 2008 to assessment of Ki-67 LI as prognostic and predictive value on disease-free survival (DFS) and overall survival (OS). Ki-67 LI values dichotomized at the value of 14%.

**Results:** Higher values of Ki-67 LI were associated with poor prognosis. 3-year DFS tended to be lower in high tumor Ki-67 LI (HR 4.05, \( P = 0.13 \)). 3-year OS was significantly lower in patients with tumors with high Ki-67 LI (HR 5.51, \( P = 0.01 \)). There was no association of Ki-67 LI to predict the magnitude of treatment benefit between patients received chemotherapy followed by hormonal treatment or hormonal treatment alone.

**Conclusion:** Ki-67 may be used as an independent prognostic factor for DFS and OS in node negative, hormone positive early breast cancer. For the predictive value, large randomized control studies with standardized cut-off point for Ki-67 will prove the useful in predicting benefit from systemic adjuvant treatment.