

## SERUM FERRITIN AND ITS ASSOCIATION WITH INTAKE OF ANIMAL PROTEINS IN PATIENTS WITH BREAST CANCER

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Elevated serum ferritin is suggested as a prognostic indicator in some Breast cancer (BC) patients. However, data pertaining to serum ferritin and its association with dietary intakes among Sri Lankan BC patients is not reported. Thus, the present study determines the serum ferritin of BC patients and the associations of intake of meat and/or fish. Serum ferritin of newly diagnosed BC patients (n=88) was analyzed using immune-fluorescent methodology. Data on average consumption of meat (chicken, pork, and beef) and fish per week was collected using an interviewer administered questionnaire (Ethical approval: 651/12). Average serum ferritin of pre and postmenopausal women were 46 $\mu$ g/L( $\pm$  SEM 9) and 97 $\mu$ g/L( $\pm$  SEM 14), respectively indicating a significant difference (p=0.001) according to the menopausal status, with premenopausal women having almost 50% less serum ferritin. Majority of the participants (78%) had ferritin within the normal reference range though 82% and 45% of pre and postmenopausal women had less than half of the upper limit of the recommended value. Among the remaining, 16% and 6% had elevated and lower ferritin levels respectively. Among the patients with elevated serum ferritin, 86% were postmenopausal women and among patients with lower ferritin levels 40% were postmenopausal. Among premenopausal women 6% and 9% had elevated and lower serum ferritin, respectively. Majority of participants were non vegetarian (96%) and among them 50% consumed chicken more than once a week and 34% consumed rarely. Further, 75% of participants never consumed beef while 72% never consumed pork. However, 15% consumed pork and beef rarely. 65% of participants were consuming fish more than once a week. The consumption of red meat by BC patients was considerably low. A significant association between dietary meat consumption and serum ferritin (p>0.05) among all as well as among patients having elevated or lower serum ferritin was not observed. Majority of the premenopausal participants (82%) had ferritin levels closer to lower reference margin and 55% of postmenopausal women had ferritin levels closer to upper reference margin. Thus, serum ferritin concentration in Sri Lankan women is not a good prognostic indicator for BC.

*Authors wish to acknowledge for the grant, ASP/06/RE/MED/2012/20 for funding*

**Keywords:** Animal protein, Breast cancer, Serum ferritin