

عنوان مقاله:

Effect of Obesity on Plasma Alkaline Phosphatase Activity in Breast Cancer

محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی، دوره 10، شماره 2 (سال: 1400)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Background: Breast cancer is most common cancer in women. Obesity is one of related-risk factor in breast cancer. In obese normal subjects, alkaline phosphatase (ALP) has been studied. However, there is no previous study investigate the association between ALP and obesity in breast cancer and its correlation with other clinical characteristics. Therefore, the objective of present study is to investigate the association between ALP and clinical characteristics in generally and obesity in particularly. Methods: A cross-study 111 new diagnosed breast cancer patients was included. Plasma ALP was measured in different subgroups: patients age <40 vs >40 , premenopausal vs postmenopausal, estrogen receptor-positive (ER+) vs estrogen receptor negative (ER-), metastasis vs non-metastasis and obese vs non-obese patients. Results: Significant increasing on plasma ALP were shown between groups of each age, menopausal status, metastasis, and obesity ($p < 0.05$, $p < 0.05$, $p < 0.01$ and $p < 0.05$) respectively. Positive correlation was observed between plasma ALP and age, menopausal status, metastasis, and obesity ($r: 0.616$, $p < 0.05$; $r: 0.667$, $p < 0.01$; $r: 0.691$, $p < 0.005$; and $r: 0.627$, $p < 0.01$). Multiple regression analysis was indicated that ALP can be determined by menopausal status, metastasis, and obesity (β -Coefficient = 0.428 , $p < 0.01$; β -Coefficient = 0.534 ; $p < 0.001$; β -coefficient = 0.545 ; $p = 0.005$), respectively. Conclusions: Together, the relation between ALP and obesity indicates that ALP could have a role in maturation of preadipocytes of breast cancer patients. Further investigations are needed to confirm that there could be a potential hormonal link between ALP and obesity in breast cancer patients.

کلمات کلیدی:

.Alkaline phosphatase, Breast cancer, Metastasis, Obesity, Menopausal status

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