

# Determination of Serum C-reactive Protein Levels in Breast Cancer by Enzyme Linked Immunoassay Technique

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## ABSTRACT

**Introduction:** C-reactive protein (CRP) is an acute phase protein, synthesized in liver and increased in blood in response to inflammation. The aim of this study to explore the serum levels of C-reactive protein in breast cancer patients, and to investigate the relationship between inflammation and progression of breast cancer.

**Methods:** This case control study was performed in Bahria University Medical and Dental College, Karachi, from September 2015 to December 2018, and comprised of two groups including breast cancer patients in group A and age-matched healthy women in control group B (n=170). CRP levels were determined in serum samples using enzyme-linked immunosorbent assay in both the groups and micro ribonucleic acid levels in serum were quantified using real time polymerase chain reaction. Data was analyzed using SPSS 16.

**Results:** Out of 170 subjects, 85(50%) were in each of the two groups. C-reactive protein and micro ribonucleic acid expression were significantly different in-group A ( $p < 0.001$ ). There was no correlation ( $r = 0.162$ ,  $p > 0.01$ ) between the tumour markers in group B ( $p > 0.05$ ).

**Conclusion:** Significantly, raised C-reactive protein levels showed there was a link between inflammation and breast cancer.

**Keywords:** Breast cancer, C-reactive protein, MicroRNA 16.

## REFERENCE

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