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**ROLE OF PROTEIN-Z LEVELS AND ITS ASSOCIATION WITH FACTOR V LEIDEN
MUTATION IN ARTERIAL AND VENOUS THROMBOSIS**

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Objective

To determine the Protein Z levels in normal control population and in patients of both arterial and venous thrombosis. To see the association of combination of Factor V Leiden mutation and altered plasma PZ levels on thrombosis phenotype

Method

300 patients comprising 150 patients of arterial and 150 patients of venous thrombosis were studied in a tertiary care hospital of Armed Forces from June 06 to Feb 08. Protein Z values were estimated using standard Enzyme linked Immunosorbent assay.

Results

An increased protein Z level in venous thrombosis was found in only 5.3% of cases as compared to 18.6% of patients with arterial thrombosis. In patients with arterial and venous thrombosis having elevated protein Z and concomitant factor V Leiden mutation have increased chances of thrombosis in a young age group, which may be of severe type

Recommendation

Protein Z is an important marker in work up of thrombophilia especially in certain situations and in specific subgroups of patients, these include young patients with arterial thrombosis with no risk factors for atherosclerosis, young patients with venous thrombosis with factor V Leiden in mutation. Protein Z level estimation should be introduced as a routine marker for investigating cases of arterial thrombosis and venous thrombosis of the young who are associated with factor V Leiden mutation.