Plasma Protein C in Thalassemic Children

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Introduction:

Children with thalassemia major have a chronic hypercoagulable state with increase incidence of thromboembolic episodes which are one of the most serious complications of thalassemia.

Hypercoagulable state in thalassemic children has been described partly due to deficiency in plasma protein C level.

Twenty three children with thalassemia major and twenty three normal children as a control group were studied to assess plasma protein C level and its possible relation to the evidence of hypercoagulable state by doing some laboratory investigations such as prothrombin time, partial thromboplastin time and plasma protein C level.

Data obtained from investigations revealed significant decreased levels of plasma protein C in thalassemic children specially in children who had performed splenectomy and those who have iron chelating therapy.

The present study finds significant alteration in haemostatic system already exist in thalassemia major children leads to chronic hypercoagulable state which make high risk for development of thromboembolic events, severe decrease in plasma protein C level may be responsible for this hypercoagulable state and thronboembolic complications in thalassemic children.