First paper

Title: Platelet derived micro particles and the risk of pulmonary hypertension in Egyptian patients with Thalassemia Major.

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Abstract: Chronic platelet activation usually accompanies this hypercoagulable state noticed in thalassemia. The associated thrombotic risk is partially attributed to the presence of high levels of membrane-derived microparticles (MPs) originating from activated platelets. The level of circulating platelet-derived microparticles (PDMPs) as a risk factor for pulmonary hypertension in Egyptian children with β-thalassemia major is a subject of interest. Forty βthalassemic children and thirty age- and sex-matched healthy subjects were enrolled in this study. CBC, serum ferritin and serum level of PDMPs were measured. Assessment of systolic ventricular function and pulmonary artery pressure was done using Doppler Echocardiographic study. Serum level of PDMPs was significantly elevated in thalassemic patients compared to healthy controls. Fifty percent of our cases had mild to moderate pulmonary hypertension. Splenectomized thalassemics had higher level of thrombocytosis and higher mean of pressure compared with non-splenectomized counterparts. PDMP was higher in patients with pulmonary hypertension with significant difference ($p<0.05$). Platelet-derived microparticles (PDMPs) may be implicated in vascular dysfunction and the risk of pulmonary hypertension in thalassemia patients. Their quantification could provide utility for early detection of cardiovascular abnormalities.
Keywords: Beta-thalassemia; Platelet derived microparticles (PDMPs); Pulmonary hypertension