IS THE HIGH MEAN PLATELET VOLUME ASSOCIATED WITH INFLAMMATION IN SUBACUTE THYROIDITIS?

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More importantly, the MPV was significantly higher in the ST group than in their healthy control group (8.79 ± 1.23 and 7.62 ± 0.75 fL, respectively; p < 0.0001). MPV had positive correlations between CRP (r = 0.414; p = 0.013) and ESR (r = 0.474; p = 0.001). There was a negative correlation between MPV and TSH (r = -0.288; p = 0.017).

DISCUSSION:
ST is an inflammatory disease of thyroid gland. MPV is a new important inflammatory marker for disease activity and efficacy of anti-inflammatory treatment in several chronic inflammatory disorders such as inflammatory bowel disease, rheumatoid arthritis and familial Mediterranean fever. According to our knowledge, we demonstrated first time that high MPV value was associated with subacute thyroiditis in hyperthyroid state.

Platelet activation, including MPV, is found that a relationship in the pathophysiology of diseases prone to thrombosis and inflammation. It is well known that an increase in the percentage of large platelets volume leads to increase of MPV levels in inflammatory disease. MPV had positive correlations between CRP (r = 0.414; p = 0.013) and ESR (r = 0.474; p = 0.001).

It is not clear whether elevated MPV volume as a predictive marker of underlying inflammatory environment in ST. Our present study indicate that MPV is an increase in ST patients. Further studies should evaluate exact mechanisms of high MPV levels in ST.

CONCLUSIONS:
MPV may be a new valuable marker of disease activity of ST as much as high ESR and CRP values.