SUMMARY AND CONCLUSION

Inflammation is a common cause of severe anemia and inadequate response to recombinant erythropoietin (EPO) therapy in maintenance hemodialysis (HD) patients. This study was performed to assess recently determined predictors for inflammation (RIPA and IgM) and their relation to anemia in these patients. The study was conducted on 28 patients from the department of nephrology, dialysis and transplantation of Abu El-Reesh New children Hospital, Cairo University. The studied patients were divided in to two groups according to their response to erythropoietin, 17 patients were good responders and 11 poorly responder to erythropoietin.

All patients subjected to full history, clinical examination, routine investigations(CBC, Urea, s.creatinine, Kt/V, s. K^+, s. Na^+, Ca, PO4, iron indices,.....) and research investigations (IgM and ristocetin platelet aggregation test).

Results revealed that there was a strong relationship between RIPA and Hb changes in hemodialysis patients under recombinant EPO therapy. The mean level of platelet aggregability was 71.7±4.1% in responders and in non responders the activity was impaired with mean activity of 49±6.6%. At the same time there was a strong correlation between platelet aggregation test and Hb changes. So that an increase in Hb level was associated with better function of the platelets ($r=0.4$, $p=<0.01$). On the other hand, there was no significant correlation between IgM level and Hb changes in either group.

Concluding, a low grade chronic inflammatory state is an important determinant of anemia in clinically stable maintenance HD patients. The distinct reasons for such impaired erythropoiesis could be some micro-inflammatory effects of HD procedures and an inflammation induced platelet dysfunction of vascular endothelial cells.