SUMMARY AND CONCLUSION

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Normal haemostasis depends on interaction of platelets with subendothelial tissue and on blood coagulation factors which can form fibrin to prevent excessive haemorrhage.

The newborn period is characterised by transient inhibition of platelet function and low levels of measured components of the coagulation mechanism. Bleeding tendency is a common cause of neonatal morbidity and mortality and to avoid this, it is mandatory to reach early diagnosis and prompt treatment.

The aim of our study was to evaluate some haemostatic system components in Egyptian symptom free fullterm, small for gestational age and premature babies to reach early diagnosis and management and consequently reduce morbidity and mortality.

The study included sixty apparently healthy neonates of mothers with apparently normal pregnancies and deliveries. Twenty of them were full term with gestational ages (38-42 weeks) and birth weights more than 3000 grams, while other twenty were small for gestational age neonates with gestational ages (38-42 weeks) and weights (below 2500 gram). The remainder twenty neonates were premature babies with gestational ages below 37 weeks and

weights less than 2500 gram. All our babies were subjected to prenatal, natal and postnatal history taking, clinical examination and laboratory haemostatic measurements, namely, platelet count, prothrombin time and partial thromboplastin time.

The mean values of platelet count in full term, small for gestational age and premature babies were 205.9 ± 98/cmm, 141.85 ± 12.85 and 126.25 ±12.88/cmm respectively, while the mean values of prothrombin time of the same groups were 15.09 ± 1.9 second, 22.7 ± 1.9 seconds, and 26.83 ± 2.4 seconds respectively, but the mean values of partial thromboplastin time were 52.49 ± 5.58 second, 91.61 ± 6.66 seconds and 127.8 ± 7.8 seconds respectively. This means that platelet count was decreased in small for gestational age babies and decreased more and more in premature babies, while prothrombin time and partial thromboplastin time were prolonged in small for date babies and more prolonged in premature babies. Moreover, there is a positive correlation between the gestational age and the birth weight on one hand and the platelet count on the other hand, while there is a negative correlation between the gestational age and the birth weight on one hand and the prothrombin time and the partial thromboplastin time on the other hand. So, we can conclude that, both the birth weight and the gestational age can affect the haemostatic measurements reflecting a potential risk of haemorrhage in the SGA babies and a higher risk in the premature ones.