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OBJECTIVES.

There are few studies on normal values of platelet parameters as mean platelet volume (MPV), thrombocytocrite (PCT) and platelet distribution width (PDW) in children. Normal values of platelet volume parameters of the pediatric age extending from neonatal period to adolescence are unknown. The aim of this study is to disclose changes occurring in platelet counts, and related parameters in the healthy individuals in the pediatric age group.

METHODS.

This study is realized in Healthy Child Clinic of Firat University Hospital on a total number of 1005 children, between 0 to 14 years old, who have normal growth and developmental features. Their blood samples were collected by venipuncture of the arm. Platelet values determined in an automatic counter (Advia 120, Japan) were used in the statistical analysis to calculate the mean and standard deviation. To determine the differentiations between age groups one way Anova was used and $p < 0.05$ was accepted as significant

RESULTS.

Platelet count and PCT values are decreased in neonatal period. These values are increased slightly in infantile period and are decreased again in adolescent period. For MPV extremely low values are in neonatal period, and after these values increase from infantile to adolescent period. However PDW values are apparently increased in neonatal period and then go along in a constant interval (Table 1, Figure 1).

CONCLUSIONS/CONTRIBUTION.

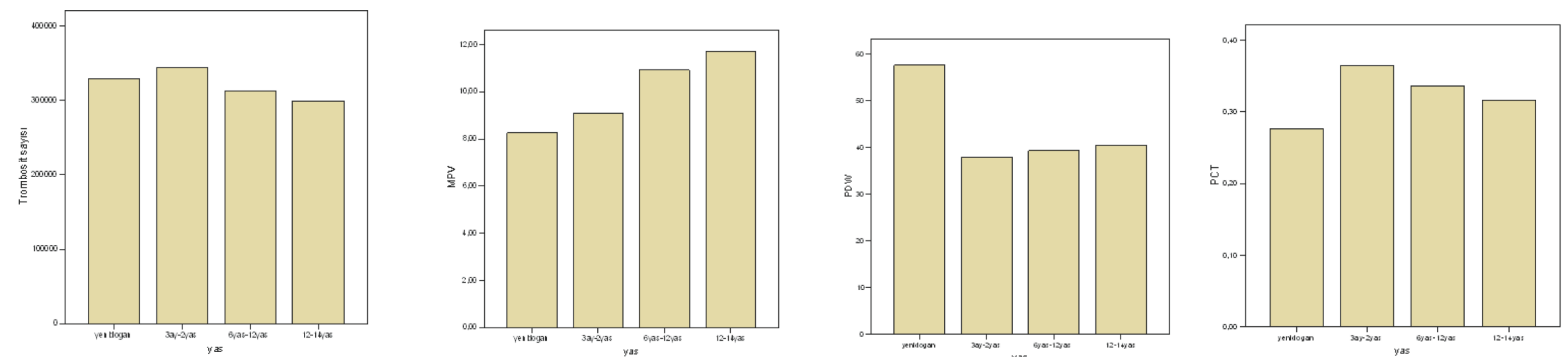
The values of platelet indices obtained in this study were similar to different reports and may be used as reference values in pediatric patients with clinical problems related to these cells.

Table 1. Platelet counts and platelet volume parameters classified according to age groups

	Group A Newborn (n=63)	Group B 3 month-2 years (n=386)	Group C 6-12 years (n=340)	Group D 12-14 years (n=216)	*p<0.05
Platelet count (/mm ³), mean±SD	329.396±70.118	344.445±71.309	313.150±76.136	299.150±77.053	A-D, B-C, B-D
MPV (fl), mean±SD	8.26±1.12	9.09±2.07	10.9±2.59	11.7±2.75	A-C, A-D, B-C, B-D, C-D
PDW mean±SD	57.7±6.02	37.9±6.86	39.3±7.59	40.5±7.45	A-B, A-C, A-D, B-D
PCT (%), mean±SD	0.27±0.07	0.36±0.11	0.33±0.11	0.31±0.10	A-B, A-C, B-C, B-D

*Anova test post hoc scheffe

Figure 1. Changes in platelet counts, and platelet volume parameters in various age groups



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