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The D-dimer reference intervals in healthy term newborns

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Materials and methods: The research had been carried out in the obstetrics and gynecology clinic and neonatal outpatient clinic of a third level hospital. Healthy-term newborns aged between 1 and 28 days were enrolled in the study. Venous blood samples were collected from peripheral veins in all babies and D-dimer, prothrombin time, activated partial thromboplastin time and platelet counts were measured. Reference intervals for D-dimer in the neonatal period were determined using 2.5th and 97.5th percentile values.

Results: A hundred and thirty-four newborns (71 boys, 63 girls) were enrolled in the study. Mean D-dimer levels of infants aged 1–28 days was 1.74 ± 1.88 mg/L (reference range; 0.25–2.81 mg/L). D-dimer levels were between 2.44 and 2.45 mg/L, 1.71–1.76 mg/L, 1.26–0.89 mg/L and 0.88–0.66 mg/L in the first, second, third and fourth week of life, respectively. D-dimer values inversely correlated with postnatal age ($r: -0.3$, $p < 0.001$). However, it remained above adult levels even in the last week. There was no statistically significant difference between the D-dimer levels of girls (1.93 ± 2.06 mg/L) and of boys (1.57 ± 1.71 mg/L).

Discussion: In this study, D-dimer levels in the neonatal pe-

riod were found to be higher than adult levels stated in the literature. D-dimer levels gradually decreased over time in the first month. It would be appropriate to use age-specific reference values in the evaluation of D dimer levels in the neonatal period.

References

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Biography

Zamin Ibrahimhalilov graduated at the age of 23 years from Azerbaijan medical faculty, Azerbaijan as a general practitioner. After 4 years of residency, he graduated from Ankara Yıldırım Beyazıt University medical faculty, department of pediatrics, Turkey. He is a Pediatrician and has 3 publications. He is currently working as a pediatrician in a private hospital.

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