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P92. Android fat distribution directly affects thrombin-activatable fibrinolysis inhibitor (TAFI) levels in women with polycystic ovary syndrome

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Context: Women with polycystic ovary syndrome (PCOS) often present thromboembolic risk factors such as obesity, hyperandrogenism and insulin resistance; however, the correlation between android fat distribution and hemostatic parameters remains unclear. Objective: To correlate hemostatic parameters with clinical and dual-energy X-ray absorptiometry (DXA) measurements of fat distribution in women with PCOS. Methods: Cross-sectional study was conducted in a tertiary teaching hospital. Correlation analysis between the hemostatic parameters and body fat distribution, using clinical and DXA variable were performed. Patients: Fifteen women with PCOS. Interventions: Clinical evaluation, venipuncture and DXA assessment. Main outcome measures: Age, body mass index, waist circumference, hip circumference, waist/hip ratio (WHR), fasting glucose, fasting insulin, total testosterone, free testosterone, thrombin-activatable fibrinolysis inhibitor (TAFI), D-dimer, PAI-1, parameters of the thrombin generation test including lag time, time to peak thrombin generation, peak concentration and the area under the thrombin generation curve, and DXA measurements: total body mass, fat mass, lean mass, body fat percentage, android fat percentage (AFP), gynoid fat percentage and android/gynoid ratio (A/G ratio). Pearson's and Spearman's correlations were used to assess the relationship between hemostatic parameters and body composition. Results: Participants were 24.5±3.6 years old and overweight (29.4±5.8 kg/m2). Investigation of possible correlations between clinical measurements of fat distribution and hemostatic parameters revealed a positive correlation between WHR and TAFI (r=0.51; 95%CI: 0.01-0.81; p=0.04); hence, the higher the WHR, the higher the TAFI. Regarding body fat distribution measured by DXA, a positive correlation was found between AFP and the A/G ratio and TAFI (r=0.53; 95%CI:0.01-0.82; p=0.04 and r=0.64; 95%CI: 0.18-0.86; p=0.01, respectively). Conclusion: In young and overweight women with PCOS, android fat distribution, as evaluated clinically and by DXA, may directly affect TAFI levels, suggesting a state of hypercoagulability.

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