

Table. Correlation coefficients for relationships between age, BMI, hormonal and lipid parameters (Spearman's test)

	Age	BMI	LH	FSH	TT	fT	E <sub>2</sub>	InhB	SHBG	TG	TC	HDL-C
LH	0,114	-0.109										
FSH	<b>0,409<sup>a</sup></b>	0.145	<b>0.381<sup>a</sup></b>									
TT	<b>-0,205<sup>b</sup></b>	<b>-0.398<sup>a</sup></b>	<b>0.215<sup>b</sup></b>	-0.132								
fT	<b>-0,451<sup>a</sup></b>	-0.121	0.043	<b>-0.287<sup>b</sup></b>	<b>0.506<sup>a</sup></b>							
E <sub>2</sub>	0,186	<b>-0.243<sup>b</sup></b>	0.141	-0.063	<b>0.246<sup>b</sup></b>	0.084						
InhB	<b>-0,359<sup>a</sup></b>	-0.029	<b>-0.404<sup>a</sup></b>	<b>-0.566<sup>a</sup></b>	0.059	0.192	<b>-0.303<sup>b</sup></b>					
SHBG	0,074	<b>-0.395<sup>a</sup></b>	<b>0.286<sup>b</sup></b>	0.083	<b>0.493<sup>a</sup></b>	0.035	0.028	0.018				
TG	0,120	<b>0.428<sup>a</sup></b>	0.010	-0.005	<b>-0.313<sup>b</sup></b>	-0.024	-0.074	0.044	<b>-0.276<sup>b</sup></b>			
TC	<b>0,252<sup>b</sup></b>	<b>0.256<sup>b</sup></b>	-0.025	0.194	-0.217	0.011	-0.184	0.113	-0.110	0.185		
HDL-C	0,035	<b>-0.257<sup>b</sup></b>	0.048	0.073	0.124	-0.003	<b>0.282<sup>b</sup></b>	-0.031	-0.020	-0.184	0.059	
LDL-C	0,160	<b>0.229<sup>b</sup></b>	-0.071	0.154	-0.168	0.020	<b>-0.229<sup>b</sup></b>	0.132	-0.032	-0.059	<b>0.871<sup>a</sup></b>	<b>-0.245<sup>b</sup></b>

Abbreviations: BMI, body mass index; LH, luteinizing hormone; FSH, follicle-stimulating hormone; TT, total testosterone; fT, free testosterone; E<sub>2</sub>, estradiol; InhB, inhibin B; SHBG, sex hormone-binding globulin; TG, triglyceride; TC, total cholesterol; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol. <sup>a</sup>,  $p \leq 0.001$ ; <sup>b</sup>,  $p \leq 0.05$ .

Table. Correlation coefficients for relationships between semen quality variables and age, anthropometric, hormonal and metabolic parameters (Spearman's test)

Variable	Semen volume	Sperm concentration	Total sperm count	Progressive motility	Normal morphology
Age	-0.098	0.095	0.087	-0.043	-0.018
WC	-0.128	0.083	0.015	0.005	0.074
HC	-0.076	-0.094	-0.098	-0.159	-0.050
WHR	-0.126	0.096	0.013	0.071	0.086
WHtR	-0.193	0.083	-0.010	0.032	0.082
BMI	-0.108	-0.008	-0.045	-0.029	0.025
<b>LH</b>	0.152	<b>-0.273<sup>a</sup></b>	-0.102	<b>-0.265<sup>b</sup></b>	-0.150
FSH	-0.078	-0.136	-0.103	-0.191	-0.151
TT	0.091	0.045	0.070	0.092	0.168
fT	0.107	0.006	0.033	0.031	0.97
E2	0.146	-0.132	-0.042	-0.158	-0.062
<b>InhB</b>	-0.048	<b>0.290<sup>a</sup></b>	0.173	<b>0.346<sup>a</sup></b>	0.180
SHBG	-0.174	0.046	-0.046	0.104	0.146
TG	0.067	-0.078	-0.045	-0.070	0.018
TC	-0.084	-0.027	-0.063	-0.106	-0.134
HDL-C	0.153	0.021	0.101	-0.001	-0.109
LDL-C	-0.126	0.007	-0.050	-0.068	-0.097

Abbreviations: WC, waist circumference; HC, hip circumference; WHR, waist to hip ratio; WHtR, waist to height ratio; BMI, body mass index; LH, luteinizing hormone; FSH, follicle-stimulating hormone; TT, total testosterone; fT, free testosterone; E2, estradiol; InhB, inhibin B; SHBG, sex hormone-binding globulin; TG, triglyceride; TC, total cholesterol; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol. <sup>a</sup>,  $p \leq 0.01$ ; <sup>b</sup>,  $p \leq 0.05$ .