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Laboratory Findings of Insulin Resistance in PCOS

Anisa Daka^{1*}, Ndok Marku^{1*}, Hamide Shllaku², Irisa Pjeci¹, Emilda Belortaja¹

¹ Laboratory Department, Mother Theresa University Hospital Center, Tirana, Albania

² Clinical Biochemistry Laboratory Department At Luigji Monti Polyambulance, Tirana, Albania

PURPOSE / OBJECTIVES

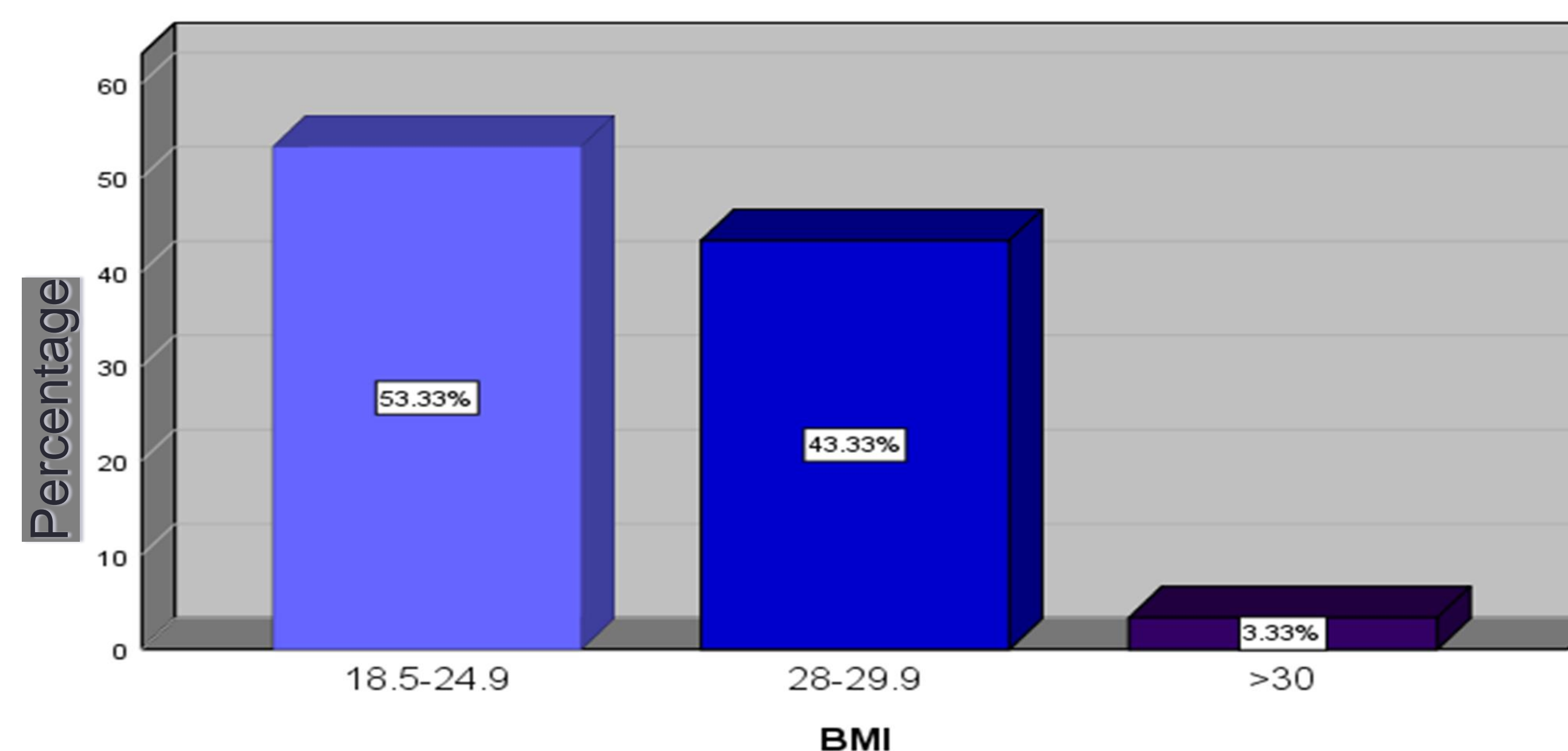
To analyze the laboratory findings of insulin resistance, metabolic syndrome, and to study their correlations in patients diagnosed with PCOS.

MATERIALS & METHODS

This is a correlational study conducted in prospective during six months, including 50 female patients, with an average age of 24.9 ± 5 , diagnosed with PCOS. We used the following data: age, BMI, value of fasting glycemia, insulinemia, cholesterol, triglyceride, LDL, HDL.

RESULTS

43.33% of the PCOS patients are overweight and 3.33% are obese. BMI can predict changes in insulin levels in 27% of the patients, changes in HOMA IR and QUICKI in 29% of the patients and changes in cholesterol levels in 25% of the patients.



The predictability effect of variables on each other

Model	Non Standardized Coefficients	Standardized Coefficient	t	r ²	Sigma	
	B	Gabimi Standart	Beta			
Insulinemia	0.62	0.019	0.52	3.25	0.27	0.003 BMI
Homa IR	0.26	0.076	0.54	3.43	0.29	0.002 BMI
Quicki	-12.97	3.98	-0.53	-3.35	0.28	0.002 BMI
Total Cholesterol	0.008	0.003	0.5	2.77	0.25	0.001 BMI
HDL	-0.23	0.01	-0.37	-1.93	0.14	0.006 BMI
LDL	0.006	0.003	0.39	2.03	0.15	0.05 BMI
Age	4.12	1.82	0.39	2.25	0.15	0.03 Glicemi
Quicki	-0.001	0.001	-0.41	-2.44	0.17	0.014 Glicemi
Triglycerids	2.34	0.92	0.46	2.52	0.21	0.016 Glicemi
LDL-cholesterol	1.81	0.93	0.37	1.92	0.13	0.045 Glicemi
Total cholesterol	6.96	1.23	0.72	2.37	0.19	0.02 HOMA IR
LDL-Cholesterol	-0.92	0.06	-0.93	1.38	0.67	0.014 HOMA IR
Total cholesterol	29.9	12.57	0.44	-1.72	0.09	0.01 QUICKI
Insulinemia	-0.71	1.23	-0.73	5.64	0.53	<0.001 HOMA IR
Insulinemia	19.73	14.24	0.27	-5.74	0.54	<0.001 QUICKI
Quicki	-23.2	13.48	-0.33	-13.7	0.87	<0.001 HOMA IR

Statistically significant at p< 0.05

Statistically significant at p<0.01

RESULTS

54.84% of the patients with PCOS present decreased insulin sensitivity and increased insulin resistance. In 67% of the patients insulin resistance can predict changes in LDL-cholesterol levels. In 53% of the patients changes in insulinemia are predicted by HOMA IR and in 54% of patients by QUICKI.

SUMMARY/CONCLUSION

Insulin resistance is present in almost 60% of patients diagnosed with PCOS. Overweight and dyslipidemia is found in 1 out of 4 patients with PCOS.