

## POTENTIAL DISCRIMINANT FACTORS FOR DIFFERENT PCOS PHENOTYPES

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**Background:** Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders in women of reproductive age. It is a heterogeneous disorder characterized by oligo- or anovulation (ANOV), biochemical or clinical manifestations of hyperandrogenemia (HA) and polycystic ovaries (PCO). Combination of these three characteristics makes four phenotypes of PCOS: phenotype 1 (ANOV +HA + PCO), phenotype 2 (ANOV + HA), phenotype 3 (HA + PCO) and phenotype 4 (ANOV + PCO). The differences between these four phenotypes are still undefined and the subjects of study.

**Methods:** We evaluate 92 PCOS women using **stepwise linear discriminant analysis** with phenotype as dependent variable and BMI, FSH, LH, LTH, oestradiol, testosterone, progesterone, HDL-cholesterol, LDL-cholesterol, HOMA IR and HOMA B as independent variables.

**Results:** The phenotype 1 was present in 32.6%, phenotype 2 in 21%, phenotype 3 in 28% and phenotype 4 in 14.1 % of cases. We found that BMI, LH, HOMA IR and HOMA B were discriminante factors for different PCOS phenotypes, while the other variables didn't reach statistically significant difference.

	<b>BMI</b>	<b>LH</b>	<b>HOMA IR</b>	<b>HOMA B</b>
<b>ANOV+PCO+HA</b>	27.1±6.0 kg/m <sup>2</sup> ;	7.33±4.69 IU/L;	1.49±0.34;	371.8±391.7;
<b>ANOV+HA</b>	29.2±8.0 kg/m <sup>2</sup> ;	5.30±3.81 IU/L;	1.32±0.39;	423.1±213.1;
<b>ANOV+PCO</b>	22.8±4.4 kg/m <sup>2</sup> ;	11.13±6.13 IU/L;	1.18±0.28;	535.1±365.5;
<b>PCO+HA</b>	24.9±5.8 kg/m <sup>2</sup> ;	4.12 ±2.62 IU/L;	1.40±0.49;	755.6±1436.2;

**Conclusions:** We concluded that **LH, BMI, HOMA IR and HOMA B** could be useful as **discriminant factors in different PCOS phenotypes.**