#### **BASAL METABOLIC RATE AS MODERATOR OF INFLAMMATION IN PCOS**



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# **OBJECTIVES & HYPOTHESES**

Polycystic ovary syndrome (PCOS) is the most common endocrine disorder in women of reproductive age, with prevalence up to 15% depending on the diagnostic criteria.

This study aims to study the metabolic-inflammatory implications of the PCOS síndrome In adolescence

## METHODS

The present prospective population study focuses on metabolic differences between patients with polycystic ovary syndrome and age/BMI matched non- patients. The age group of interest is puberty and the relevant population (of 41 females) is recruited by the Centre for Adolescent Medicine and UNESCO Chair on Adolescent Health Care of the First Department of Paediatrics, at the "Aghia Sophia" Children's Hospital, in Athens, Greece. Bioimpendance is an established non-interventional method of body composition and metabolism detection in health and disease investigations. The markers of metabolism chosen are: abdominal adipose tissue (AAT), basal metabolic rate (BMR), extra cellular water to body cell mass ratio (ECW/BCM). Finally, phase angle (PhA) was chosen as marker of inflammation

# **RESULTS AND CONCLUSIONS**

No differences in metabolic markers was shown. Yet, a strong correlation between the BMR and PhA in adolescents with PCOS was observed (p=0.0.17); the correlation is suggested to be specific for the syndrome.



### **PARTICIPANTS' CHARACTERISTICS**

| BODY<br>COMPOSITION | PCOS (n=19)      | Non-PCOS=(n=18)  | p-value |
|---------------------|------------------|------------------|---------|
| BMI                 | 26.18 (4.04)     | 26.90 (5.89)     | P>0.05  |
| AAT                 | 383.38 (193.80)  | 379.82 (169.71)  | P>0.05  |
| BMR                 | 1391.40 (125.48) | 1407.25 (128.80) | P>0.05  |
| PhA                 | 5.1 (1.30)       | 4.9 (1.8)        | P>0.05  |
| ECW/BCM             | 1.1 (0.24)       | 1.02 (0.20)      | P>0.05  |
|                     |                  |                  |         |





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