

Prevalence of polycystic ovary morphology in a region of South Italy

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Dear Editor,

We assessed the prevalence of polycystic ovary morphology (PCOM) in the Campania Region of South Italy as a result of a large information campaign aimed at disease prevention in the adolescent population. The campaign was based on free visits and diagnostics. A total of 141 female adolescents aged 14–19 years were enrolled in a wide student population in the Salerno area. Written informed consent was obtained by the young women. They were all healthy and did not take therapy for menstrual disturbances or hirsutism. Subjects using medication (including oral contraceptives) were excluded.

A transabdominal pelvic ultrasound was performed on each patient (Logiq 500, GE Medical Systems, WI) on days 1–6 of her cycle, using a 3.5-MHz probe. The diagnosis of PCOM was made if 12 or more follicles measuring 2–9 mm in diameter in each ovary, and/or increased ovarian volume (>10 mL), were found. The diagnosis of multifollicular ovary was made if both ovaries were of

normal size or slightly enlarged and 7–9 anechoic follicles, 4–10 mm in diameter, were spread throughout the ovary [1].

141 patients agreed to participate in the study. Of the whole population studied, 32 women (23.0 %) had multifollicular ovaries while 51 (36 %) fulfilled the echographic criteria for the diagnosis of PCOM. The remaining number of subjects, 58 (41 %), had a normal ovary morphology (Fig. 1).

The present results were in agreement with previous studies. In a study performed in 262 ovulatory Caucasian women aged 25–45 years [2], a PCOM prevalence of about 32 % has been reported. In a study performed in Australia, where the criteria of enrollment and age (from 14 to 16 years) were similar to ours, the prevalence of PCOM was 35 % [3]. However, previous studies reported a prevalence of PCOM that was much lower compared to our data [4] (about 20 %). This discrepancy may be due to several confounding factors. Differences in age distributions of study populations may partly explain the variability of prevalence.

Moreover, the ultrasonographic technique (transabdominal vs. transvaginal) may affect the results obtained, along with the selection criteria for subjects. PCOM seems to be a heritable autosomal dominant trait that is not always accompanied by Polycystic Ovarian Syndrome (PCOS). PCOM has been detected in children and adolescents, in menopausal women, in patients with a history of congenital adrenal hyperplasia, in women with idiopathic hirsutism and in women with regular cycles. Some authors hypothesized that PCOM alone represents the mildest form of PCOS; in fact, these women showed intermediate serum anti-Müllerian hormone levels and responses to a gonadotropin-releasing hormone challenge, as compared to women with frank PCOS and women in the control group,

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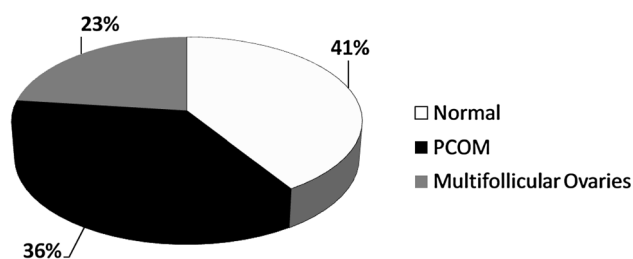


Fig. 1 The prevalence of PCOM in Campania Region, South Italy. Multifollicular ovaries were detected in 32 women (23.0 %) while PCOM were detected in 51 (36 %) women. The remaining number of subjects 58 (41 %) had a normal ovary morphology

although the metabolic profiles of women with PCOM alone have been reported not to differ from those of controls. Thus, PCOM may be part of the spectrum of patients with PCOS, of which only a minority have some evidence of hyperandrogenism and most of whom have no hormonal derangements.

In conclusion, our preliminary data reported a prevalence of PCOM of 36 % in healthy adolescents in the Campania Region, South Italy. These data will be refined and further expanded in the later stages of the project, which will investigate the prevalence of both PCOS and PCOM in the Campania Region, South Italy. Furthermore, longitudinal studies are needed to investigate if these women will later develop full-blown PCOS or if PCOM persists or disappears in ultrasonography with increasing age in clinically symptomless women.

Compliance with ethical standards

Conflict of interest GM declares that she has no conflict of interest; MC declares that he has no conflict of interest; SP declares that he has no conflict of interest; FO declares that he has no conflict of interest.

Ethical approval All procedures performed in the study were in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from all individual participants included in the study.

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