

POLYCYSTIC OVARY SYNDROME (PCOS) IN YOUNG WOMEN: NEW TRENDS IN DIAGNOSIS AND MANAGEMENT

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Abstract. Polycystic Ovary Syndrome (PCOS) is one of the most prevalent endocrine disorders among young women of reproductive age. Diagnostic criteria and therapeutic approaches have evolved in recent years, driven by advances in imaging, hormonal assessment, and lifestyle medicine. This article aims to review recent developments in the diagnosis and management of PCOS, with a focus on early detection and personalised interventions.

Keywords: PCOS; Adolescent health; Hyperandrogenism; Insulin resistance; Diagnosis; Lifestyle intervention; Reproductive endocrinology.

Introduction. PCOS has been recognised as a heterogeneous endocrine disorder that commonly presents during adolescence or early adulthood. It is characterised by a triad of hyperandrogenism, ovulatory dysfunction, and polycystic ovarian morphology. The diagnosis is typically made using the Rotterdam criteria; however, the application of these criteria in young women has been debated due to physiological overlap with normal puberty.

Diagnosing PCOS in adolescents and young women is complicated by the natural variability in menstrual patterns and androgen levels during puberty. Polycystic ovarian morphology observed via ultrasound may be misleading in younger patients due to normal follicular development. Hormonal evaluations often reveal elevated androgens and luteinising hormone (LH), but reference ranges may vary with age and pubertal stage.

Emerging biomarkers such as anti-Müllerian hormone (AMH) and advancements in sonographic imaging have contributed to earlier and more accurate diagnosis. Nonetheless, overdiagnosis remains a concern, particularly when criteria are applied without careful clinical correlation.

Management strategies have shifted towards a more individualised and multi-disciplinary approach. Lifestyle modification, including weight management, physical activity, and nutritional support, remains the cornerstone of treatment. Insulin-sensitising agents, particularly metformin, are commonly prescribed for individuals with metabolic abnormalities. Hormonal contraceptives continue to be used for the regulation of menstrual cycles and reduction of hyperandrogenic symptoms. Newer therapies, including inositols and GLP-1 receptor agonists, are currently under investigation and have shown promise in improving metabolic and reproductive outcomes. Psychological support and patient education are increasingly recognised as

critical components of comprehensive care, given the impact of PCOS on quality of life and mental health.

Conclusion. Polycystic Ovary Syndrome in young women poses unique diagnostic and therapeutic challenges. Recent advances in diagnostic tools and emerging treatment modalities offer hope for more tailored and effective management. Further research is needed to refine age-appropriate diagnostic criteria and to evaluate the long-term outcomes of novel therapies.

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