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Polycystic Ovary Syndrome in Adolescence

New Insights in Pathophysiology and Treatment

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Abstract

Polycystic ovary syndrome (PCOS) is a prevalent cause of menstrual disorders, acne and hirsutism presenting during adolescence. In the majority of cases, a familial trait is obvious but the offending genes have yet to be identified. However, much of the pathophysiology of the syndrome causing the overproduction of ovarian androgens is now becoming clearer. The early diagnostic signs are often mistakenly dismissed as 'normal' changes of adolescence but it is important to make an early diagnosis in order to save the adolescent from the early and late stigmata of the syndrome. The avoidance of overweight, frank obesity and the consequential exaggeration of symptoms by the associated insulin resistance is of prime importance as hyperinsulinemia plays a key role in the pathogenesis. Anti-androgens are the most widely used medication and, in combination with estrogen, are capable of restoring menstrual regularity and reducing the symptoms of acne and hirsutism, so important for the improvement of the disturbing psychosocial effect that they may play at this age. The use of metformin, an insulin sensitizer, for affected adolescents is the topic of a presently heated debate.

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Introduction

Presenting around the time of the menarche, polycystic ovary syndrome (PCOS) is a very prevalent syndrome in adolescence. Although the pathogenesis of this heterogeneous syndrome is still incompletely determined, the management of the specific symptoms in adult women is now fairly well determined. In adolescents however, the subject of management leaves many questions unanswered.