



PCOS & PCOD in Teens

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Abstract

Polycystic ovary syndrome (PCOS) is a heterogeneous disorder characterized by hyperandrogenism and chronic anovulation. Depending on diagnostic criteria, 6% to 20% of reproductive aged women are affected. Symptoms of PCOS arise during the early pubertal years. Both normal female pubertal development and PCOS are characterized by irregular menstrual cycles, anovulation, and acne. Owing to the complicated interwoven pathophysiology, discerning the inciting causes is challenging. Most available clinical data communicate findings and outcomes in adult women. Whereas the Rotterdam criteria are accepted for adult women, different diagnostic criteria for PCOS in adolescent girls have been delineated. Diagnostic features for adolescent girls are menstrual irregularity, clinical hyperandrogenism, and/or hyperandrogenaemia. Pelvic ultrasound findings are not needed for the diagnosis of PCOS in adolescent girls. Even before definitive diagnosis of PCOS, adolescents with clinical signs of androgen excess and oligomenorrhea/amenorrhea, features of PCOS, can be regarded as being “at risk for PCOS.” Management of both those at risk for PCOS and those with a confirmed PCOS diagnosis includes education, healthy lifestyle interventions, and therapeutic interventions targeting their symptoms. Interventions can include metformin, combined oral contraceptive pills, spironolactone, and local treatments for hirsutism and acne. In addition to ascertaining for associated comorbidities, management should also include regular follow-up visits and planned transition to adult care providers. Comprehensive knowledge regarding the pathogenesis of PCOS will enable earlier identification of girls with high propensity to develop PCOS. Timely implementation of individualized therapeutic interventions will improve overall management of PCOS during adolescence, prevent associated comorbidities, and improve quality of life.

Introduction

A hormonal disorder causing enlarged ovaries with small cysts on the outer edges.

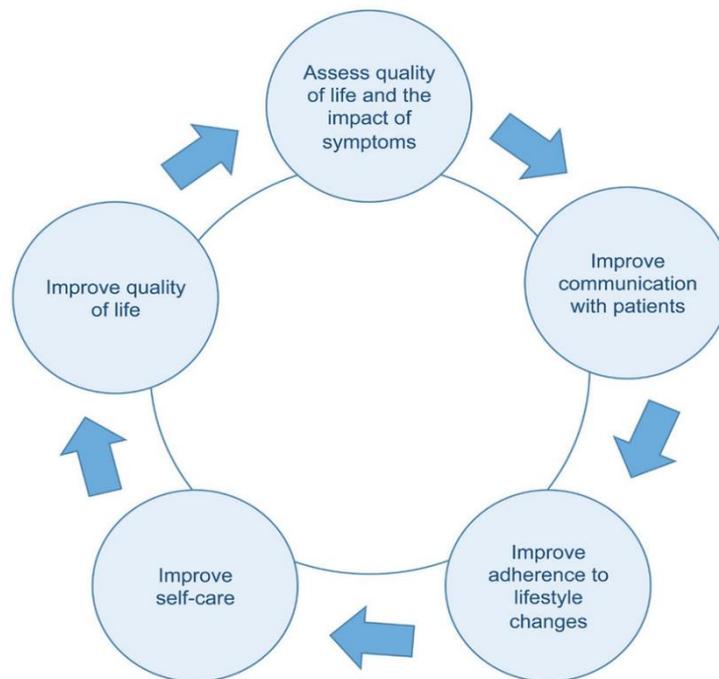
PCOD: PCOD (Polycystic Ovarian Disease) is mostly caused by a combination of hormonal imbalance and genetic tendencies. In a standard menstrual cycle, the two ovaries will alternately release mature, ready-to-be-fertilized eggs each month. For someone with PCOD, however, the ovaries will often release either immature or only partially-mature eggs, which can go on to develop into cysts (little sacs filled with liquid).

PCOS: Polycystic ovary syndrome (PCOS) is a condition in which the ovaries produce an abnormal amount of androgens, male sex hormones that are usually present in women in small amounts. The name polycystic ovary syndrome describes the numerous small cysts (fluid-filled sacs) that form in the ovaries.

Hypothesis

Polycystic ovary syndrome (PCOS) remains an enigmatic disorder whose etiology is still unclear. In this debate, I propose that genetic factors have an important part to play and that the disorder has its origins in early, possibly prenatal, life. The hypothesis is that polycystic ovary syndrome is a genetically determined, primary ovarian disorder resulting in excess androgen production. We suggest that the capacity to hyper secrete androgens begins in fetal life and that the typical clinical and biochemical features of PCOS are “downstream” effects of exposure to androgen excess at or before puberty. The phenotype may be influenced by other genes and by environment.

Objectives



Symptoms Of PCOD & PCOS

Dermatological Features



Hirsutism



Balding



Acne



Oily skin



Skin discoloration

(acanthosis nigricans)

High levels of androgens typically lead to various dermatological symptoms.^{9,10} These include hirsutism (coarse and dark hair on the body areas where men typically grow hair—e.g., the face, abdomen, chest, and back), acne, and balding/alopecia. In adolescents, some of the dermatological symptoms may be caused by puberty rather than PCOS.

Menstrual Disorders



Amenorrhea



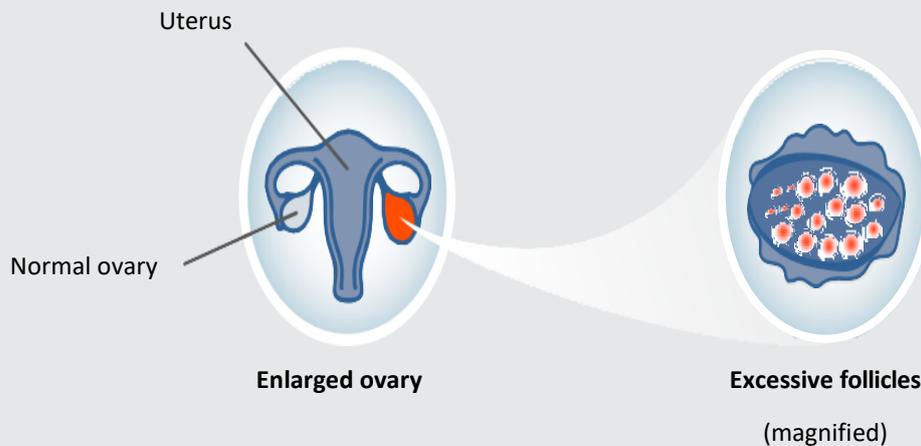
Oligomenorrhea



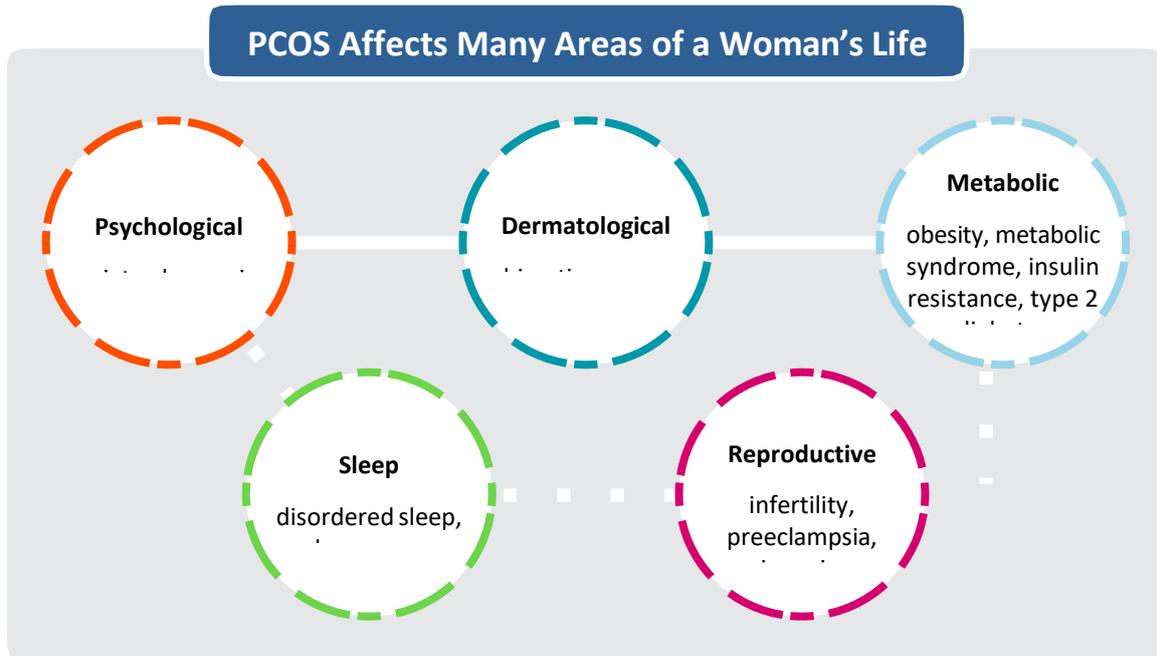
Menorrhagia

Menstrual disorders may vary, from complete absence of menstruation (amenorrhea) to menstruation delayed to 35 days or more (oligomenorrhea) to heavy bleeding (menorrhagia). Women with irregular menstrual periods have a 91% chance of having PCOS.¹¹ Those with PCOS are 15 times more likely to report infertility.¹²

Polycystic Ovaries



Excessive follicles, which is defined as 25 or more follicles that are 2 mm to 10 mm in a single view of a transvaginal ultrasound, may be present in PCOS. Additionally, increased ovarian volume, an ovary that is more than 10 mL, may be present.



Some females start seeing symptoms around the time of their first period, some women only discover when they have gained a lot of weight or trouble getting pregnant. The most common signs and symptoms of PCOD Problem or PCOS in females are:

- Irregular menstruation (Oligomenorrhea)
- Skipped or absence of menstruation (Amenorrhea)
- Heavy menstrual bleeding (Menorrhagia)
- Excessive Hair growth (face, body - including on back, belly, and chest)
- Acne (face, chest, and upper back)
- Weight gain
- Hair loss (hair on the scalp gets thinner and fall out)
- Skin darkening (Neck, in the groin, and under the breasts)

PCOS / PCOD problem in future

Females those who are diagnosed with PCOD problem or PCOS should monitor their health on regular basis to avoid any complications in the future. If left untreated, PCOD problem in future can lead to type 2 diabetes, obesity and other mental issues due to hormonal imbalance whereas PCOS in future can have serious complications such as risk of hypertension, hyper glycaemia, endometrial cancer and pregnancy complications (premature birth / preeclampsia / miss carriage).

How PCOD is Diagnosed?

While there is no particular test to confirm PCOD, your doctor would discuss your medical history and perform a physical examination to confirm the condition. They may then recommend

- A pelvic examination
- Blood tests to quantify hormone levels
- An ultrasound to check the appearance of your ovaries and the uterus

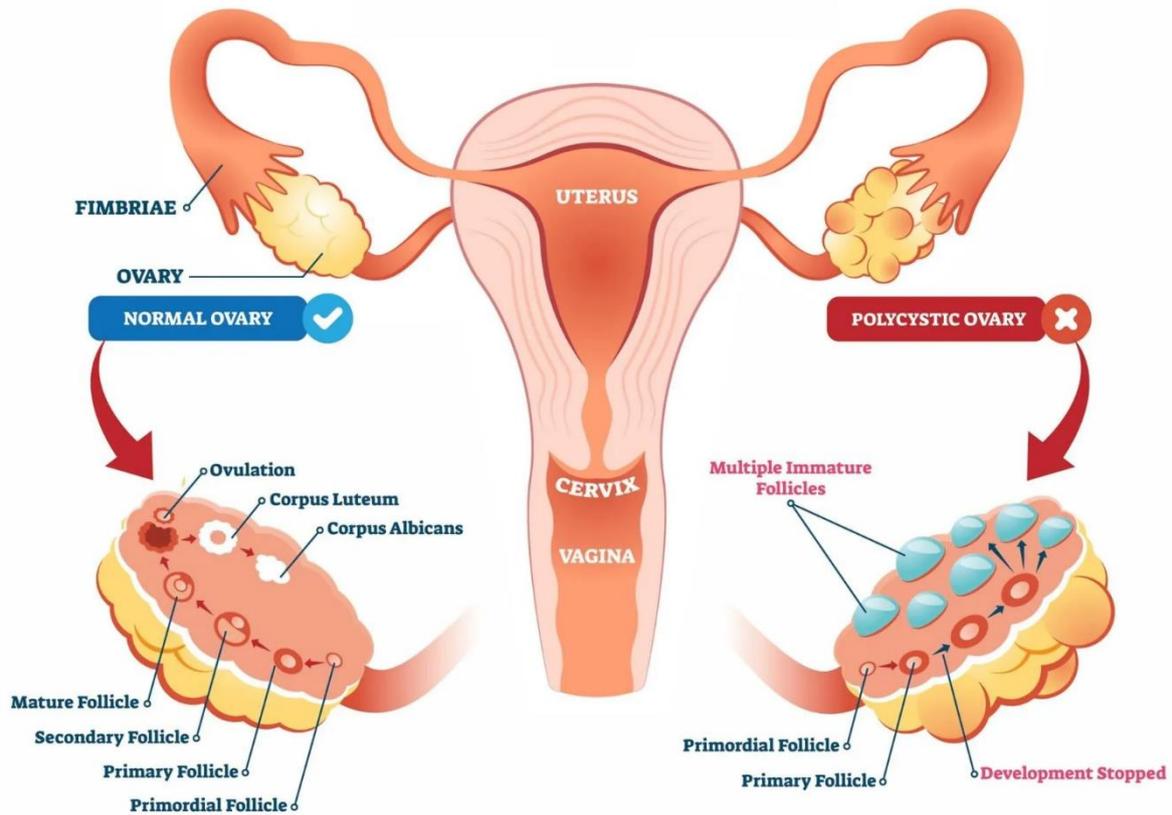
What are some problems associated with PCOD?

Some complications can arise from PCOD. These include various diseases and medical conditions, such as

Various metabolic syndromes, including high blood pressure, cardiovascular diseases, increased cholesterol and blood glucose levels.

- Miscarriages
- Infertility
- Gestational diabetes
- Sleep apnea
- Type 2 Diabetes
- Depression and other mental disorders
- Endometrial cancer
- Abnormal uterine bleeding
- Untreatable acne, displaying hormonal problems
- Chronic Liver inflammation

Studies also report that by the age of forty, approximately fifty per cent of women with PCOD would develop pre-diabetes or would already be diabetic, while many others would face infertility during their childbearing age.



Solution of the Problem

Diet to Treat PCOD

While many lifestyle recommendations are suggested for those women suffering from PCOD, you are encouraged to follow a PCOD diet with low fat and carbohydrate content. This would prevent any sudden upsurge in your blood sugar levels and help you keep a check on your weight. Foods that may be included are

- Natural, unprocessed food
- Spinach, kale and other leafy vegetables
- Foods high in fiber
- Broccoli and cauliflower
- Nuts and legumes
- Fish
- Whole grain
- Low-fat dairy

What exercises are best for PCOD?

If you are suffering from PCOD, then your first task is to reduce your Body Mass Index (BMI). Various types of exercises that you could consider are

- High-Intensity interval training (HIIT)
- Cardiovascular workouts
- Mind-body exercises
- Strength training
- Interval training

What you can do

Before your appointment, make a list of:

- Symptoms
- Information about your periods, including how often they occur, how long they last and how heavy they are
- All medications, vitamins, herbs and other supplements you take, including the dosages.
- Key personal and medical information, including other health conditions, recent life changes and stressors.
- Questions to ask your health care provider.

Conclusion

There is no clear cause for PCOD. However, early detection or diagnosis of PCOD will be constructive in relieving the symptoms as well as to reduce the complications involved.

PCOD treatment helps you to manage your concerns, including infertility, hirsutism, acne, immature follicles, or obesity. However, specific treatment might involve lifestyle changes or medication.

Reference

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