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Summer 8-2-2017

Polycystic Ovarian Syndrome

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Polycystic Ovarian Syndrome

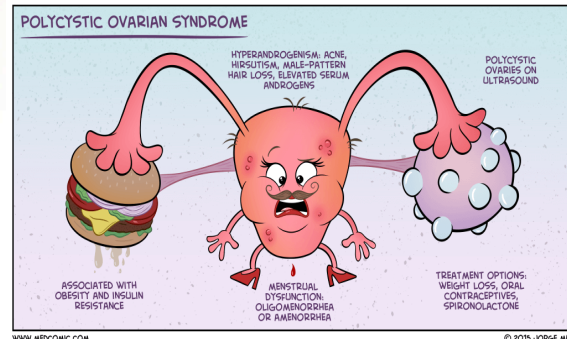
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Introduction

Polycystic ovary syndrome (PCOS) affects 8-10 percent of reproductive-aged females. "...PCOS happens when a woman's ovaries or adrenal glands produce more male hormones than normal. PCOS causes cysts (fluid-filled sacs) to grow on the ovaries" (Medline Plus, 2017). It is one of the most common diseases of endocrine dysfunction in women, but diagnosis is sometimes missed or delayed because patients with PCOS are often treated for the signs and symptoms of the condition without consideration for the underlying syndrome. Patients often present with complaints of acne, hair loss, hirsutism, irregular vaginal bleeding, and infertility. Many patients receive treatments for these specific complaints before they are further evaluated for other potential etiologies of said complaints (Thornton et al., 2015).

The keys to diagnosis and treatment of this syndrome lie in the provider's ability to understand the diagnostic criteria. Treatments should be aimed at controlling the symptoms and underlying causes of the syndrome (Thornton et al., 2015). The prevalence of PCOS is increasing in frequency and correct diagnosis and treatment are important because this disease puts the patient at higher risk of developing certain co-morbidities such as diabetes, metabolic syndrome, heart disease, and high blood pressure (Medline Plus, 2017). A provider should be able to identify the clinical manifestations of the syndrome and utilize treatments to decrease hyperandrogenic symptoms, reduce underlying metabolic abnormalities, eliminate endometrial hyperplasia and carcinoma, and improve ovulation in those patients who suffer infertility (Thornton et al., 2015).



Conclusions

The prevalence of PCOS is increasing in frequency and it is an important issue to address due to the sequelae and co-morbidities associated with this diagnosis. Providers should be able to identify the clinical manifestations of the syndrome, apply therapy based on the patient's goals to decrease symptoms, reduce underlying metabolic abnormalities, eliminate endometrial hyperplasia and carcinoma, and improve ovulation in the patient seeking pregnancy (Thornton et al., 2017).

There is no known cure for PCOS. Long term medications and lifestyle changes are essential for a successful outcome. The goals of treatment are aimed at reversing the signs and symptoms of androgen excess, instituting cyclic menstruation, restoring fertility, and addressing any metabolic or endocrine disturbances. Management of the disease is through the combined, synchronous efforts of a dermatologist, endocrinologist, gynecologist, nutritionist, and personal trainer (Madnani et al., 2013).

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Underlying Pathophysiology

I have been working in women's health for seven years now and have always had a particular interest in women's health issues, particularly the topic of polycystic ovary syndrome. Given its incidence and potential health consequences, it is important for the provider to be educated on this topic and consider it among possible etiologies for their patients' complaints. This will allow the patient to receive prompt, appropriate treatment. Correct diagnosis will also alert the provider to the patient's increased metabolic and cardiovascular risks, so they can monitor the patient more closely for these.

The exact etiology and pathophysiology behind PCOS is not well understood, but the disease seems to result from a combination of reproductive and metabolic abnormalities. This leads to chronic hyperandrogenism and increased estrogen concentration, which leads to a loss of normal hormonal feedback. This, in turn, leads to a rise in the levels of circulating LH, FSH, estradiol, and low progesterone levels (Thornton et al., 2015). Polycystic ovary syndrome develops when an overproduction of male hormones causes cysts to grow on a woman's ovaries. A genetic component has been suspected, and PCOS is more common in women who have a mother or sister with PCOS (Medline Plus, 2017).

Signs and Symptoms

Symptoms of PCOS are typically related to anovulation and hyperandrogenism. Symptoms usually appear within two years of puberty. Patients typically present with a spectrum of complaints including acne, androgenic hair loss, acanthosis nigricans, hirsutism, irregular vaginal bleeding, amenorrhea and infertility. Many of these patients will also have other major medical comorbidities along with PCOS. These include coronary artery disease, metabolic syndrome (approximately 50 percent of these patients), elevated blood pressure, and hyperlipidemia (Thornton et al., 2015).

Significance of Pathophysiology

"Polycystic ovary syndrome (PCOS) affects 8-10 percent of reproductive-aged females, making it the most common state of endocrine dysfunction in women" (Thornton et al., 2015). Diagnosis is sometimes missed or delayed because patients with PCOS are often treated for the signs and symptoms of the condition without consideration for the underlying syndrome. Many patients receive treatments for their specific complaints before they are further evaluated for other potential etiologies of said complaints, which delays diagnosis and treatment and also causes frustration for the patient. Some very serious co-morbidities often accompany this syndrome, including glucose intolerance, hypertension, and hyperlipidemia and it is imperative that the healthcare provider recognize and address these issues (Thornton et al., 2017).

Implications for Nursing Care

The nurse should suspect PCOS in women with/without a history of irregular periods with complaints of acne, hirsutism, alopecia, acanthosis nigricans and metabolic syndrome. Other hyperandrogenic states must be ruled out prior to diagnosis of PCOS. Patients must be counseled about the long duration of treatment, which includes lifestyle modifications with diet and exercise. The patient needs to be made aware of their risk for glucose intolerance, Type 2 diabetes, hyperlipidemia, and heart disease. Additional targeted therapies for hirsutism, oligomenorrhea, and infertility should be discussed. It is also important that the nurse offers emotional support to patients with PCOS and screens for anxiety and depression (Madnani et al., 2013).



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