Polycystic Ovarian Syndrome

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Polycystic Ovarian Syndrome
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Introduction
The main goal of this project was to educate peers on the pathophysiology of a disease or disorder of choice. The topic to be discussed is Polycystic Ovarian Syndrome (PCOS). This topic was chosen based on personal interest in women's health issues.

PCOS is a metabolic disease affecting 5-10 percent of women of childbearing age (Morgan, 2013). Characteristics of PCOS include enlarged ovaries consisting of multiple small cysts surrounding the outer ovary, with unknown cause (Morgan, 2013). Leading to the ovaries producing an increased amount of androgen (male hormones) (Morgan, 2013).

Case Study
TT is a 28yo African American female with c/o irregular periods. Her LMP was 6 months prior and her periods have been irregular since menarche (Pannill, 2002). She mentioned a 35lb weight gain over 7 months. She is married and uses no form of contraception but does not desire to get pregnant at this time. Other complaints include increase in acne on her face and back as well as excess hair growth on her face, chest and stomach, which is causing her to experience low self esteem. The increase in hair growth has lead to her needing to shave every few days (Pannill, 2002).

PMHx: Obesity, HTN
Htx: HTN, Type II DM
SHx: Wisdom teeth -
SocHx: Pt is a social drinker 2-3 drinks/week. Denies tobacco use or recreational drugs.

Exercises 2-4x/week for at least 30min.
Diet is moderately healthy.
Meds: Prenatal vitamin, Fish oil,
Allergies: NKDA
Labs: LH, Testosterone, Insulin/glucose, WNL= FSH, cholesterol/triglycerides

U/S: consistent with PCOS

Signs/Symptoms
- Obesity (50%) of patients
- Excessive facial and body hair
- Increased muscle size
- Reduced breast size
- Acne
- Amenorrhea (absent menstrual cycles)
- Menstrual irregularities
- Anovulation
- Hyper androgenism
- Insulin resistance
- Cardio-metabolic abnormal
- Ovarian polycystic appearance on ultrasound

Underlying Pathophysiology
- Fertility issues
- Insulin resistance
- Type 2 diabetes
- Hyper-cholesterolemia
- Infrequent ovulation
- Heart disease
- Greater risk HTN
- Sleep apnea
- Fatty liver disease

Implications for Nursing Care
- Be supportive
- Assist patient in learning to manage sugar cravings
- Encourage pt to continue with exercise regimen
- Educate about anti-inflammatory diet and lifestyle

Conclusion
Pt has positive findings consistent with PCOS. She does not desire to get pregnant at this time but maintaining her on Metformin is the suggested preventative therapy to decrease the chances of the long term health issues related to PCOS, such as heart disease, Type II DM and possible endometrial cancer.

Not only will Metformin assist in regulating her insulin levels and blood sugar but it will also stabilize her hormones and regulate her menstrual cycles. If the patient continues this plan of care, pregnancy in the future may not be as challenging when she is ready (Pannill, 2002).

Figure 1

Pathophysiology

Adipose Tissue

1. Estraglandular Aromatization
2. Chronic Anovulation

Pituitary

1. LH Secretion
2. FSH Secretion

Obesity

Hyperandrogenism

Insulin Resi stance

Acne

Hair loss

Elevated AMH

Figure 1. Retrieved via Medscape on July 30, 2015.


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