**Two Different Topics**

**Topic 1**

Uncontrolled hyperglycemia over an extended period has adverse effects on the health of the patients. The situation can cause neuropathy that can occur throughout the body but common in limbs. Hyperglycemia also causes cardiovascular diseases through an inflammatory response that often damages the vascular system (Pistrosch, Natali & Hanefeld, 2011). Damages of the blood vessels in uncontrolled blood glucose levels can also cause blindness from diabetic retinopathy. The affected individual may also develop eye cataracts that affect their sights. Cases of diabetic nephropathy are also common among patients that fail to control blood sugar levels. Pathophysiology of diabetic nephropathy involves changes in all the compartments of the kidneys (Khoury, Chen & Ziyadeh, 2015). Poor control of diabetes may also result in skin infections that affect the health of the patient. Moreover, the patient may show signs of bone and joint problems leading to further complications.

One of the factors that lead to good control of blood glucose levels is increased awareness among patients (Ahmad, Islahudin & Paraidathathu, 2014). Diabetic people who understand the importance of the initiative to the show increased responsibility in controlling their levels of glucose. Besides, presence and ability for self-monitoring to further enhance the ability to control glucose levels. Monitoring enables that patients assess their status and make necessary adjustments. Studies also show that patient taking drugs for the acute condition have high adherence to regimens compared to individuals in chronic conditions (García-Pérez, Álvarez, Dilla, Gil-Guillén & Orozco-Beltrán, 2013). Lack of awareness and illiteracy among patients contribute to high levels of poor hyperglycemic controls. Moreover, diabetic patients who lack the self-monitoring abilities also have poor control of their blood glucose levels. Finally, taking the drugs for an extended period reduces the adherence to the regimens.

**Topic 2**

Development of polycystic ovary syndrome (PCOS) results from functional ovarian hyperandrogenism. Thus, the ovaries secrete high amounts of androgens due to dysregulation from increased GnRH pulsatile release or insulin resistance (Rosenfield & Ehrmann, 2016). The condition can develop from genetic or environmental factors. Excess amounts of androgens in the body of female causes arrest of antral follicle development. Thus, the resulting impact of this arrest cause polycystic ovaries and at the same time cause anovulation. The patient suffering from these conditions suffer from subfertility and anovulation bleeding. These bleedings also show irregular cycles. Besides, due to anovulation, the patient lack corpus luteum causing decreased amounts of progesterone. At the same time, the body produces high amounts of estrogen due to minimal amounts of estrogen. Such situations enhance the risk of these patients to suffer from endometrial cancer. The patients may show an abnormal menstrual cycle, become obese and infertile.

The physician considers diagnosing PCOS for women who show at least two of the symptoms. One of the tests that doctors conduct is a pelvic exam to note any problem with ovaries. The process also involves a blood test to determine levels of androgens produced by the body (Legro et al., 2013). An ultrasound may also be an option to analyze abnormality of the follicles and any other problem in the reproductive system. Evaluation through these diagnostic tests combines findings from symptoms such as abnormality in the menstrual cycle to confirm cases of PCOS. After the diagnosis, the patient will need treatments to help in improving the health of the patient. However, there is no cure for PCOS making the physician to seek possible ways of managing the symptoms. The management process involves the use of medications for the symptoms. Some patients may also need to change their lifestyles or even go for laparoscopic ovarian drilling.

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