A related community nurse interventions and care plan

This paper is going to illustrate a case study about pulmonary fibrosis, which has been chosen during two weeks of clinical practicum by presenting the medical history of the patient, identify the disease, Incidence and Prevalence, symptoms, risk factors, diagnosis, treatments, and prevention. Moreover, it will represent a related community nurse interventions and care plan.

Medical History:

O. A is a 67 years old Emirate male, born on 1/01/1943 that arrived to the poly clinics in Tawam hospital on 26/11/2010 accompanied with his son, complaining of chest pain, shortness of breathing, dry cough and impaired movement. He has a previous medical history of Idiopathic pulmonary fibrosis, Pulmonary Artery Hypertension (PAH), chronic kidney disease, diabetic nephropathy, hyperlipidemia, obesity, orthostatic hypotention, orthopnea, diabetes mellitus tybe2, Coronary Artery Disease, mild Congestive Heart Failure, and dilated Right Ventricle. In addition, the social history for O. A is ex smoker 2packs/day for the last 30-40 year. He just stopped 3 years back. While about his family history he stated " my family is healthy, I only have a diabetic brother". The doctor ordered a 6 minute walk test (to evaluate the patient abilities and dysfunction) and a pulmonary function test. Currently the patient is on 2L oxygen and medications include insulin needles, Emollient, Diltiazem, Ciprofloxacin oral, Lisinopril and others.

Idiopathic pulmonary fibrosis (IPF) is" a progressive and generally fatal disease characterized by scarring of the lungs that thickens the lining of the lungs, causing an irreversible loss of the tissue´s ability to transport oxygen". (Coalition for Pulmonary Fibrosis, 2009). IPF also called cryptogenic fibrosing

alveolitis (CFA), and Usual interstitial pneumonitis (UIP). (Adam Multimedia Encyclopedia, 2010). On the fight trip against pulmonary fibrosis disease, doctors and patients hope to identify the disease etiology. If doctors and diagnosis failed to identify the disease causes then the condition is called Idiopathic pulmonary fibrosis. The disease process differ from patient to another due different factors , in some patient the disease progress fast, in others it is slow , and it may de stable for few years before progressing. The disease process differ from patient to another depending on different factors , in some patient the disease progress fast, in others it is slow , and it may be stable for few years before progressing. An IPF patient may live 3 to 5 years (National Heart Lung and Blood Institute, 2009).

The few number of researches conducted to estimate the number of patients with pulmonary fibrosis and the non-efficiency research led to a lack of information about people with pulmonary fibrosis. One of the latest researches, which were held in the United States, estimated the prevalence of IPF about 128, 000 people. (Pulmonary Fibrosis Foundation, 2009). Additionally, another study done in the united states on 2000 estimated the number of new cases and the total number of existed cases of IPF patient is 14. 0 and 6. 8 American for each 100, 000 person of the population (Raghu, Weycker, Edelsberg, Bradford, & Oster, 2006).

Although it is idiopathic pulmonary fibrosis but doctors were able to identify the contributing factors that increase the risk of having pulmonary fibrosis. For example being a smoker or a negative smoker would increase the odds. Also genetic play a role, some studies showed that pulmonary fibrosis can be genetic. Moreover, in many studies people developed pulmonary fibrosis

after having a viral disease (mayo clinic staff, 2009). In addition, Chemicals or toxins And Drugs or radiation may lead to pulmonary fibrosis on the long term (Drugs information Online, 2010).

It is crucial for nurses to identify pulmonary fibrosis signs and symptoms. According to the USA Today (2010) the most common symptoms are shortness of breath, dyspnea which is difficulty in breathing, cough, cyanotic skin, chest pain, fatigue, fever, Loss of appetite and weight, clubbed fingers, cardiac disease, and infections.

Idiopathic pulmonary fibrosis complication include Low blood-oxygen levels , pulmonary hypertension, Right-sided heart failure, and Respiratory failure (mayo clinic staff, 2009).

Diagnosis and tests

Patient may undergo one or more diagnostic method. Those diagnostic methods include Arterial Blood Gas Studies in which a blood sample is taken from an artery mainly from patient arm. This blood is tested for gases in it such as O2 and CO.

Another method is blood test that is performed mostly by nurses by taking blood from a vessel and may be done more than once. The blood sample benefit in identifying any health condition and give a clear idea about patient health. A common diagnostic study is Chest X-Ray, which is a lung and heart picture and is used to diagnose many health conditions such as fluid around the heart and lungs, broken ribs, collapsed lungs, tumor, and infection signs. The next method is Computerized Tomography(CT) Scan, it is similar to chest x-ray but here patient is given a dye before the procedure. This dye

makes the computer picture clear. Allergic history is very important when using the dye (Drugs information Online, 2010).

A widely used pulmonary fibrosis test is Pulmonary Function Tests. In this test health caregivers instruct patient to use a device called spirometer that measure lungs volume and capacity. And it provides valuable information about the lung function and status, also according to the results the caregivers would decide the best treatment for the patient. Moving to much invasive procedure which may be considered as the last solution. Bronchoscopy is an invasive procedure done by using a tube which allows the doctor to see inside the airways and lungs. It has a diagnostic and therapeutics uses, such as for identifying the infected area or to remove foreign bodies. To minimize pain and relax patient, medication is given prior to the procedure. Finally, Lung Biopsy is a test done to talk a tissue sample from lungs and to be send for further investigation. After anesthesia the doctor inserts a needle in a small incision and obtains a sample (Smeltzer, Bare, Hinkle, & Cheever, 2008).

Concerning O. A he underwent many tests like Chest X-Ray which showed prominent pulmonary vasculature with bilateral basal haziness. Appearance suggestive of pulmonary congestion. Another test was done is Adult Echocardiography that showed dynamic Left Ventricle contractility and severe PAH. Furthermore, he had Head CT that illustrated minor flax calcifications at the vertex. And a small retention in the left portion of the sphenoid sinus. Also O. A had undergone for Thorax CT, which confirmed bronchieetatic changes in both lungs, more at the bases and even in the

middle lobe. Honeycomb changes in both lungs, more advanced at the base of both lungs indicating extensive lung fibrosis.

Treatment

As mentioned earlier Idiopathic pulmonary fibrosis is a fatal disease, which has no cure until this day. Any treatment program or intervention accomplished by caregivers is aimed to slow the disease process and to manage the symptoms. Patient may implement a collection of treatment method to improve the quality of life with IPF. The treatment options are: firstly, medicine such as steroids to treat the inflammation and Immunosuppressant to suppress the immune system and mostly combined with steroids to maximize therapeutic effect. Secondly, surgery which might be the last solution if no improvement noticed and severe PF. Surgery can either by removing a small infected part of lungs or by removing the lung and replacing it with a matches healthy (lung transplant) (Drugs information Online, 2010).

Moreover, the treatment approaches that aim to improve patient quality of life are: pulmonary rehabilitation and Oxygen therapy. Those treatment strategies need a collaborative health care team; they improve patient saturation level, prevent some complications, better breathing, and improve daily function (mayo clinic staff, 2009).

An ounce of prevention is worth a thousand treatments. Nurses should always give preventive advises for patient at high risks. According to Educating Instead of Medicating (2010) pulmonary fibrosis prevention include special diet that contain Foods That Heal, Vegetable juices, Fats that

Heal, Unrefined Sea Salt. Additionally, body cleansing is very important in order to have healthy kidneys, bowel, dental, and liver, which eventually promote the overall health and decreases the risk for having PF. A balanced and regular Physical Activity and Psycho-physical activity helps in improving health status. It has a magical impact on the Psychological health by minimizing stress and distraction effect. Examples of these activities are walking in the nature, yoga, dancing, and fishing. And the preventive advice is sweating. It improved a great cleansing effects and body balance restoring by eliminating toxics.

Health promotion and Nursing intervention

Health promotion defined as " the activities that assist people in developing resources that maintain or enhance well being and improve their quality of life"(Smeltzer, Bare, Hinkle, & Cheever, 2008). As a community nurse it is part of our duty and moral obligation to promote patient health, prevent illness, and advocate for patient interests. For that we try our best to satisfy patients and help them adapt with their new condition.

A Comprehensive nursing care plan for a patient with Idiopathic pulmonary fibrosis consists of: Advanced care planning starts with discussing patient condition, prognosis, expectation, and death. By communicating with patient honestly, the community nurse, patient, and patient family can define their goals and work as a team. Then, Cognitive behavioral therapy proved that it is a very essential component of the care plan, as it showed a dramatically change in patient mental status and behavior. It also decreased patient stress level and depression. Lastly, pulmonary rehabilitation programs can be implemented successfully after insuring the patient willingness to adhere

to those programs. They focus on the management of symptoms such as dyspnea, chest pain, and hypoxia (Lindell, 2007).

The nursing intervention regarding O. A pulmonary fibrosis symptoms consist of agreed goal, implementing and educating techniques about patient needs. Starting with dyspnea, the goal here is to enhance breathing. Nurse should position patient in high fowler’s position if it is a mild dyspnea and to administer oxygen in severe cases, also it is important to educate patient about positioning, triggers, and relief measures. The second thing to manage is coughing also is managed as dyspnea concerning the education needs, but the cough is managed by using cough suppressant after identifying the cause with caution. If the triggering cause is smoking, the patient and the family should be educated about smoking cessation. Finally, chest pain may be managed by decreasing stress and using medication such as analgesic and Non Steroidal Anti-inflammatory drugs (Smeltzer, Bare, Hinkle, & Cheever, 2008).

In conclusion, Idiopathic pulmonary fibrosis is a severe untreated disease that impairs patient life. There are few epidemiology studies about PF. It can be manifested as dyspnea, chest pain, and dry cough. These symptoms can be addressed and managed, unlikely the disease prognosis. Although PF has unknown cause, doctors were able to identify the triggering factors such as smoking, viruses, and toxins. Nowadays, diagnosing IPF is much easier than ever, thanks to Chest CT, Chest X â€” Ray, and Bronchoscopy. The pulmonary fibrosis can be managed by administrating oxygen and steroid drugs. And can be prevented by following PF diet, body cleansing, and physical and psychological activities, which will improve the patient overall

health. Through the community nurse perspective it is important to manage stress and to improve behavior toward the illness in PF patient.