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Case Report

A Prospective Clinical Case Study of COPD (Coronary Obstructive Pulmonary Disease) Patient Shifted to Emergency

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Abstract

Coronary Obstructive Pulmonary Disease (COPD) is a reversible incomplete form of advanced airflow obstruction and abnormal inflammation of lung tissues occurred during the progression of this disease. The primary symptoms of this disease involves wheezing phenomena that remain persistent, recurrent chest infectious problems, rest breathlessness that prolongs with exercise, mucus hyper secretion, consistent coughing with phlegm and ultimately destruction of parenchyma cells of lungs due to severe coughing. In this report, we are discussing the case study of COPD pneumonia patient due to vulnerability of this particular disease.

Background

Shahzadi khan was an eighty-four-year-old woman. Four days ago, she developed severe cough with green phlegm that progresses for longer period of time. She was prescribed and was on prednisolone 40mg Per Oral daily and 5-day course of azithromycin 250mg Per Oral by her general practitioner. She used to have a temperature of 102.0F/ 38.9°C early afternoon, despite having occasional cold sweats. She was already having more trouble breathing the night before but was using her salbutamol inhaler nearly 1-2 hours with no change. As a result, she was taken to the hospital's emergency room (ED), where she could be treated. The nurse in the emergency department gets this scenario, report the relevant information.

Symptomatic study

Patient was 84 years old so she was at higher risk to develop problems or complications. She had green phlegm indicating dead neutrophils. She had an infection [1]. Yellow or green or anything in between is always a red flag that is recognized as relevant by the nurse [2]. She was started on prednisone and azithromycin so the immediate medical staff already had the understanding that what these drugs doing, as prednisone was decreasing the inflammation. She also had the temperature raise recognizing that something wrong was happening inside.

Vital signs of Patient

- Temperature 102.0F/ 38.9°C (oral)
- Pulse 110 (Regulator)
- Respiratory 30 (labored)
- Blood Pressure (178/96 mmHg)
- Oxygen saturation 86% on 6 liters per nasal cannula

First three points of vital sign criteria were the immediate relevant indications that recognized that there was a systemic inflammatory response that was more than a simple pneumonia. She was likely to be septic [3]. Blood pressure was high though at this point and was not going to lower. O₂ saturation more than 92% was considered to be greater, 90% occurred in those patients that had the history of COPD or pneumonia. Patient needed to go to an alternative oxygen delivery system through the face mask or high flow nasal cannula.

Nursing Assessment of Patient

Appearance of Patient

There is a barrel chest present, and she seems nervous and distressed.

Respiratory

Dyspnea via accessory muscles utilization, significantly reduced shallow breathing bilaterally and intermittent exhalation wheezing

Cardiac

ECG signal regular-S1S pulses high, equal to auscultation at horizontal landmarks, pale, hot and dry, no edema



Neurological condition

Patient was seemed to be high alert mode with condition and anxiety

Abdominal condition

Patient was having soft tender abdomen situation

Urinary tract

Urine passing was clear with no primary infection symptoms

Skin

Integrity of skin was intact and there was no tenting present

Laboratory Findings

Table with 5 columns: Metabolic Panel, Na+ ions, K+ ions, Glucose, Creatinine. Rows: Present Values, Previous Values.

Table with 6 columns: Vital Signs, White Blood cells count, Hemoglobin, Platelets, Neutrophils percentage, Bands. Rows: Present Values, Previous Values.

Table with 6 columns: Arterial Blood Gas, pH values, carbon dioxide, Oxygen partial pressure, Carbonate ions, O2 Salt. Row: Present Values.

Lactate value 3.2 (Normal < 2.8)

Discussion

The above clinical case will have left the readers with the following information Diagnosis: After evaluation of all relevant data clinically, the main problematic area was pneumonia superimposed Coronary obstructive pulmonary disease (COPD) [4].

Rationale of treatment

- Albuterol-ipratropium 2.5mg tab
• Prepare peripheral intravenous line
• 1mg Lorazepam intravenous push every 6 hours to control mental stress
• 125mg IV push Methylprednisolone
• 750mg IVPB Levofloxacin (after blood cultures drawn)
• 1000 mg oral Acetaminophen (Paracetamol)

Priorities of nursing staff that will monitor the care plan: Nurse should enhance the liquid nutritional intake of the patient. Establish an operational communication with the

patient [5]. Frequently check the patient vital signs. Check the medication and dosage regimen on daily basis. Priorities in Psychosocial/holistic treatment that were needed to be addressed for this patient. She was in the stage of psychological distress so she needed emotional support to cover the disabilities. Support the patient with some physical exercise to avoid immobility stages [6]. Priorities in patient attendant educational/discharge needed to be addressed to promote health and wellness for this patient and family. Patient should be addressed with all necessary options that can be taken to avoid stress and to help her to overcome the disease [7].

Conclusion

From above short clinical case study, it could be summarized that broad-term epidemiologic parameters could give a deeper considerate about what is currently understood regarding the natural background and pharmacology of initial-stage coronary obstructive pulmonary disease patients and epidemiologic investigations assessing prognostic indicators for advancement could support to classify patients at higher danger for medical deterioration. Additionally, long-standing behavior randomized control trials of non-symptomatic and lower symptoms carrying patients with negligible harm to sequel would aid to address the debate around gross welfares of airing.

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Conflict of Interest

Authors confirms that there is no conflict of interest

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