Case report on Acute Cardiopulmonary failure with Pneumonitis with Pickwickian syndrome

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Abstract

INTRODUCTION: The inability of the heart to supply enough blood flow to the body's metabolic tissues is known as heart failure (H.F.). A patient's tolerance for physical activity is described by the N.Y.H.A. Classification of H.F., updated in 1994 to include objective assessments of heart function and disease. The phrase "cardiopulmonary disease" is used in medicine to refer to various dangerous diseases that affect the heart and lungs. Cardiovascular Disease (CVD) and Chronic Obstructive Pulmonary Disease (C.O.P.D.) are the two main cardiopulmonary conditions caused by cigarette use (C.O.P.D.). A severe respiratory infection brings on the lung condition known as pneumonia. The tiny sacs called alveoli that make up a healthy person's lungs are filled with air as they breathe. Pneumonia causes the alveoli to fill with pus and fluid, making breathing challenging and limiting oxygen intake. A metabolic syndrome is a group of risk factors associated with cardiovascular disease morbidity and mortality. It is often referred to as Syndrome X (CVD). Despite being widespread, it has not received enough attention and occasionally goes unnoticed. As primary care practitioners, we must keep an eye out for these people so that early identification, intervention, and prevention can be put into practice.

A Chinese lady with metabolic syndrome is described in the following paragraphs. Present complaint and investigation: on March 28, 2022, a 62-year-old female was hospitalized at A.V.B.R. Hospital with breathing difficulty, lower limb swelling, chest pain, mucus in the throat and lungs, loss of appetite, nausea, and vomiting. Twelve days have passed. Investigation: Haemoglobin is decreased by 10.7gm, WBC count 11,000 per microliter, Total R.B.C. count increased 5.84 million /cell, M.C.H. level Decreased 70fl, MCH IS DECREASE 22.8 picogram. Therefore CT report should be interpreted in correlation with clinical &pathological findings. PAST HISTORY: he was admitted eight days before outside the hospital for the same complaints on 26/02/2022. Pneumonia one year back for which she symptoms in 2000 for fibroid he took treatment. Aft

Keywords: syndrome, pneumonia, pulmonary.

INTRODUCTION

It is difficult to believe that obstructive sleep apnea (O.S.A.) has only been distinctly identified and recognized for several decades, given the extensive media coverage of O.S.A. and its disastrous long-term effects. Extreme Obesity Associated with Alveolar Hypoventilation: A Pickwickian Syndrome" by Burwell 1 in 1956 provided the first comprehensive modern description of the syndrome. In a retrospective cohort study, we looked at whether advancements in nasal continuous positive airway pressure (nCPAP) technology—specifically, the addition of automatic nCPAP pressure adjustment (auto-CPPAP)—have improved patient acceptance and (long-term) compliance in patients with obstructive sleep apnea syndrome (O.S.A.S.) when compared to previously published data. From January 1997 to July 2005, 256 patients who received CPAP therapy for O.S.A.S. were referred to our clinic for overnight polysomnography received questionnaires. 24 of the 256 patients could not be reached for follow-up. Obstructive sleep apnea (O.S.A.), the most common sleep-disordered breathing, has emerged over the past 50 years as a significant risk factor for cardiovascular disease. The complex interactions between O.S.A. and cardiovascular risk factors, such as dyslipidemia, obesity, hypertension, and diabetes mellitus, which foretell increased morbidity and mortality in susceptible individuals, have been the subject of a sizable body of research. He referred to it as "Syndrome X" and described it as "a cluster of risk factors for diabetes and cardiovascular disease." The idea of insulin resistance was one of his main contributions. This book explains the causes, pathogenesis, clinical management, and
association of all risk factors with coronary heart disease, non-alcoholic fatty liver disease, polycystic ovary syndrome, and diabetes. The first edition of The Metabolic Syndrome, which won high honors in the 2006 Annual British Medical Association medical books competition, has improved. The first edition's chapters have all been fully updated in this new edition, which also includes five additional chapters on the following subjects and more contributions from abroad: Obesity in children and metabolic syndrome, Surgical weight loss for obesity, Fitness insulin resistance in the brain and appetite insulin resistance in the metabolic syndrome and its characteristics. The Metabolic Syndrome's brand-new edition will be an essential tool for all clinical researchers, doctors, and scientists. Invasive pneumococcal disease in the United States has significantly decreased due to young children receiving the pneumococcal conjugate vaccine. Still, it is unknown what effect this has on community-acquired pneumonia. We monitored the prevalence of pneumonia among 794,282 Group Health members before and after the introduction of the infant vaccine in 2000. By looking at chest radiograph reports or hospitalization records, we confirmed 17,513 outpatient and 6318 hospitalized events. We presumptively identified pneumonia episodes using diagnosis codes assigned to medical encounters. Following the introduction of the vaccine, there was evidence of a decrease in the rates of outpatient and hospitalized pneumonia in children younger than one year of age. Still, there were no consistent decreases in the rates of pneumonia in older children and adults.

Patient Information:

Patient-Specific Information: on March 28, 2022, a 62-year-old female Patient came to the casualty with complaints of breathlessness which was M.M.R.C. grade I to begin with, and gradually progressed to grade IV. She also had a cough with mucoid expectoration and fever which was low grade and intermittent for 12 days. She had bilateral lower limb swelling for 12 days.

Primary content and symptoms of the patient: She was suffering from headaches, blurred vision or double vision, hormonal imbalance, exhaustion, weight gain, nausea, and weakness, among other symptoms. Over the previous 15 days, you've noticed unintended weight loss or improvement, increased urine volume, and sexual dysfunction. These were the main symptoms seen at the time of admission. She was now admitted to the A.V.B.R. Hospital in M.I.C.U. further management of the regular examination, and the doctor diagnosed her with Obesity hypoventilation syndrome (Pickwickian syndrome). Tab Amlol O.D., tab spherical O.D., Tab matilda forte O.D., and tab limee 500 mg O.D. Was given.

Medical, family psychological history: The patient was admitted and put on a mechanical ventilator due to respiratory acidosis and a fall in saturation. After being extubated and placed on a non-invasive ventilator, the patient gradually improved and is now being released in stable condition with advice to continue receiving B.I.P.A.P. support (given OBESITY HYPOVENTILATION) POLYSOMNOGRAPHY, with ahi of 23.1 was done. A diet chart suitable for the patient was given after dietician consultation in light of obesity and weight reduction. The patient had routine chest and limb physical therapy in the hospital.

Relevant past intervention with outcomes: not reported.

PHYSICAL EXAMINATION AND CLINICAL FINDINGS:

PHYSICAL EXAMINATION: She was alert and cooperative upon arrival and well-oriented. The patient was of average build, standing 162cm tall and weighing 56kg. Her vitals were afebrile. Chest examination – Decreased breath sounds, Cardiovascular system- s1 s2 heard no murmur.

Timeline: she was admitted 12 days outside for the treatment of obesity hypotension syndrome. In A.V.B.R. Hospital for treatment tab am lol O.D., tab spherical O.D., Tab matilda forte O.D., tab limee 500 mg O.D., pan 40 mg O.D., tab clopidogrel O.D., tab PCM 650mg S.O.S. to treat obesity hypotension syndrome was given.

Diagnostic Assessment: Haemoglobin is decreased 10.7gm, WBC count 11,000 per microliter, Total R.B.C. count increased 5.84 million /cell, M.C.H. level Decreased 70fl, MCH IS DECREASE 22.8 pico-gm. Therefore CT report should be interpreted in correlation with clinical &pathological findings.

Diagnostic challenge: during the diagnostic evaluation, there were no difficulties
Diagnosis: the doctor diagnosed obesity hypoventilation syndrome (Pickwickian syndrome) after a physical examination and investigation.

Therapeutic intervention: Tab am lol OD, tab shell OD, tab matilda forte OD, tab limcee 500 mg OD, pan 40mg OD, tab clopidogrel OD, tab PCM 650 mg SOS, Injection Lasix 20 mg IV OD, tab matilda forte OD, injection gentamycin 80 mg IV BD, to patient. She responded well to all treatments, with a positive outcome. After examination and therapy, the patient's signs and symptoms were minimized, and he could resume normal activities. The treatment approach has remained unchanged.

Outcome and follow-up: patient responded to the treatment and counseling, and her hemoglobin level decreased. The patient's symptoms were resolved, and discharge was given to the patient.

Discussion:

Repetitive upper airway obstruction can cause reflex bronchoconstriction by activating neural receptors in the patient's pharynx; as a result, some O.S.A. patients have bronchus hyperreactivity and bronchitis symptoms. Despite significant differences in the diagnostic standards, it is known that the metabolic syndrome consists of the following elements: obesity in the abdomen, atherogenic dyslipidemia, hypertension, insulin resistance or glucose intolerance, an inflammatory response, and a prothrombotic response. Invasive pneumococcal illness in the United States has significantly decreased due to young children receiving the pneumococcal conjugate vaccine. However, it is unknown what effect this has on community-acquired pneumonia. We monitored the prevalence of pneumonia among 794,282 Group Health members both before and after the introduction of the baby vaccination in 2000. By looking at chest radiograph reports or hospitalization records, we confirmed 17,513 outpatient and 6318 inpatient events. We presumptively identified pneumonia episodes using diagnosis codes allocated to medical encounters. Following the introduction of the vaccination, there was evidence of a decrease in the rates of outpatient and inpatient pneumonia in children younger than one-year-old. Still, there were no consistent decreases in the rates of pneumonia in older children and adults. This meta-analysis shows that O.S.A. increases the risk of essential hypertension in a dose-response manner, with 20 original studies in 19 articles. Due to a lack of current data, a dose-response meta-analysis has not been performed; however, the trend of the pooled O.R.s demonstrates that the risk of hypertension increases with the severity of OSA. The fundamental cause of publication bias, a serious problem in systematic reviews, is the propensity for research with good results to be published more frequently than negative findings. There is a sizable publication bias in our meta-analyses of moderate O.S.A., severe O.S.A., and essential hypertension. We conducted the Trim and Fill analysis to lessen the possibility of publication bias influencing the results. Trim and Fill's comment revealed that the pooled O.R.s for the associations between moderate O.S.A. and essential hypertension, severe O.S.A. and essential hypertension, and the link between O.S.A. and resistant hypertension all remained statistically significant. The identification of heterogeneity is crucial for meta-analysis since it can be caused by different clinical trial designs or statistical methodologies. No substantial heterogeneity was discovered in the current investigation, indicating that our findings are compatible. In the statistical analysis of clinical trials, potential confounding factors must be adjusted with caution.

Conclusion:

The patient came to the casualty with the complaints of breathlessness which was M.M.R.C. grade I to begin with and gradually progressed to grade Iv; she also had a cough with mucoid expectoration and had a fever which was low grade and intermittent for 12 days. she had bilateral lower limb swelling since 12 days. After a thorough examination, the patient was diagnosed with respiratory hypertension acidosis with obstructive sleep apnea. to safeguard patients from such significant health difficulties, detailed clinical assessment, expert nursing care, and effective forensic studies are all essential.

REFERENCES


