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A Rare Case Report on Good Pasture Syndrome

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Abstract: ***Background: "Goodpasture syndrome" refers to a condition in which an uncommon but life - threatening autoimmune illness that affects the lungs and kidneys. Disease develops when the body's immune system produces antibodies against collagen in the lung a type of protein that helps animals create tissue. The autoimmune disease Goodpasture syndrome affects the lungs and kidneys. and can be fatal. Patient information: A patient is 34 year old male, having chief complete is short ness of breath, chest pain, fatigue, coughing and weakness. His weight is 56 kg. He is admitted in hospital on date 06 - 07 - 2023. Clinical findings: The patient appeared to be awake and oriented with individuals on general inspection. There are no high - risk variables. He was pale, anxious, and dyspnoeic throughout the examination, and he had roles in the lungs. Patients with clinical symptoms that are very similar to those of our case have lately been described. He has circulating antibodies. Medical Management: Oral immunosuppressive drugs like cyclophosphamide and corticosteroids are frequently prescribed. These drugs suppress the immune system's generation of Goodpasture syndrome antibodies. In some circumstances, intravenous corticosteroids may be required to control pulmonary bleeding. Nursing Management: Administered fluid replacement (DNS and RL), maintained intake and output charts, and hourly monitored all vital signs. Conclusion: Development of antibodies against the glomerular basement membrane and alveolus causes Goodpasture syndrome, which results in impairment to renal and pulmonary function.***

Keywords: Anti - glomerular basement membrane, alveolar haemorrhage, glomerulonephritis, immune system, and alveolar haemorrhage have all revealed a healthy patient. Some people with Syndrome of the Goodpasture may have antineutrophilic cytoplasmic cytoplasm.

1. Introduction

The term "Goodpasture syndrome" refers to a condition in which an uncommon but life - threatening autoimmune illness that affects the lungs and kidneys[1]. Disease develops when the body's immune system produces antibodies against collagen in the lung a type of protein that helps animals create tissue. The autoimmune disease Goodpasture syndrome affects the lungs and kidneys. and can be fatal. Disease develops when the body' Despite the lack of renal abnormalities, Goodpasture syndrome should be considered in the medical diagnosis of diffuse pulmonary haemorrhage, and serum anti - glomerular basement membrane antibody testing is typically helpful in confirming the diagnosis. Antibodies against collagen are produced by the immune system in your lungs and kidneys. Collagen is a type of protein that assists in the production of connective tissue of animals.

ANCAs are positive in certain patients with Goodpasture syndrome, making it difficult to distinguish it from polyamide - induced granulomatosis.] Antibody disease of the cement membrane (GBM) is a rare autoimmune illness characterised by crescentic fast - progressing glomerulonephritis, and some IgA - mediated disorders can present with pulmonary - renal syndromes. This illness is usually diagnosed when there is additional pulmonary bleeding. The ampli - frication products were initially sequenced in Blue script (Stratagem) before being put into K in the right orientation. The molecular underpinning of Goodpasture: Type IV collagen structure, gene organisation, and relevance in human disorders. We recently established a treatment regimen involving intense plasma exchange and cytotoxic medicines for Goodpasture's syndrome caused by antibody to the glomerular basement membrane (GBM), ' which has allowed us to study an unusually high number of patients.

Patient information - A patient is 34 year old male, having chief complete is short ness of breath, chest pain, fatigue, coughing and weakness. His weight is 56 kg, he was admitted in hospital on date 06 - 07 - 2023.

Patient Specific Information: Patient had previous good history he was coming in hospital with chief complete of chest pain, coughing and weakness form 2 weeks. No any history of hypertension, Diabetic mellitus and tuberculosis.

Primary concerns and symptoms of the patient: A 34 yrs. Old male was visited in hospital OPD on date 02 - 07 - 2023 with chief complaint of pain in chest and coughing since 2 week. Their Blood pressure is a 120/60 mmHg and pulse rate is 78beats/minute.

Medical family and psychosocial history: Present case had no any medical and surgical history. In family history he is belong to nuclear family and his wife had medical history i. e. DM. He mentally stable, conscious and oriented. He was maintaining the good relationship with family members, doctors and nurses as well as other patients also.

Clinical findings: Patient was pale, distressed, and dyspnoeic and hadrales at the lung. Clinical features closely resembling those of our patient have recently been described in patients. if When there is active bleeding or the patient has undergone a renal examination at the conclusion of the exchange, he has circulating antibodies against the glomerular basement membrane. Caring for people with Good - pasture syndrome is difficult due to the high mortality rate.

- Height 153cm
- weight 56kg.

Complete blood count

Diagnostic assessment

X - ray: Fluorescent staining in a smooth wavy line along the basement membrane of renal or lung tissue during influence studies

Prognosis: Dialysis - dependent end - stage renal failure patients with goodpasture syndrome almost never regain independent renal function. In a patient with a 100 percent crescentic lesion, immunoadsorption and immunosuppression were employed to reverse dialysis dependency. In a second patient, early immunoadsorption treatment was able to completely restore normal renal function just one month after treatment began.

Therapeutic intervention - present case took the medical management with oral immunosuppressive medications cyclophosphamide 50 mg OD and corticosteroids table hydrocortisone 240 mg BD was administer. These drugs suppress the immune system's generation of Goodpasture syndrome antibodies. In some circumstances, intravenous corticosteroids may be required to maintain control pulmonary haemorrhage. After investigation. This medicine inhibits the production of goodpasture syndrome by the immune system. Metroprolol 25mg tablet is used to lower blood pressure. Plasmapheresis. This therapy, also known as therapeutic plasma exchange, uses a machine to filter blood and remove anti - GBM antibodies.

Nursing perspectives: IV fluid was provided to maintain the fluid and electrolyte Monitored.

2. Discussion

When circulating antibodies were present, pulmonary haemorrhage or nephritis exacerbations were common, and disease exacerbations were frequently related with intercurrent infection [5]. The aetiology is unknown and good posture syndrome is usually fatal if left untreated[6]. Early detection and treatment can slow the progression of the disease and raise the chances of survival. Treatment modalities are still debatable and differ amongst practitioners. The assays have a high level of sensitivity and specificity. can vary a lot with quickly progressing glomerulonephritis. When A pulmonary haemorrhage is a blood clot in the lungs. additionally Currently, this illness is known as Syndrome of the Goodpasture . when there is also pulmonary bleeding present[7]. patient with Goodpasture syndrome and their outcomes**.** This condition is a rare, and no link between tuberculosis and Goodpasture's syndrome has been shown to far. Discussion Several studies have shown the poor prognosis of Goodpasture'syndrome[8] Addendum We're currently using plasma exchange to treat a second patient with Goodpasture's condition.

Discussion of relevant medical literature: The presence of an autoantibody reaction to the noncollagenous domain of the 3 chain of type IV collagen [3 (IV) NC1] in the alveolar and glomerular basement membrane is a defining hallmark of Goodpasture disease[9]. These antibodies are linked to the development of glomerulonephritis with or without lung bleeding, although autoantibodies against the other chains of the heterotrimeric type IV collagen are unlikely to produce disease[10]. We wanted to see if differences in fine specificity of autoimmune recognition of the 3 (IV) NC1 correspond with clinical outcome in this investigation. Anti - glomerular basement membrane antibodies cause Goodpasture's syndrome, a rare autoimmune illness that affects only one organ. Its pathophysiology is defined by crescentic glomerulonephritis on the glomerular basement membrane with linear immunofluorescent staining for immunoglobulin G. A few cases with no circulating anti - glomerular membrane antibodies have been reported, albeit they are uncommon. The clinical approach and diagnosis Early aggressive therapy has been proven in studies to improve prognosis. In the case of pulmonary renal syndrome, tissue diagnostics such as bronchoscopy and kidney biopsy should be considered.

3. Conclusion

The Patient 34 year old male admitted in AVBR hospital on date 06 - 07 - 2021with chief complaint Shortness of breath, chest pain, weariness, coughing, and weakness. The history, physical examination, ECG, and chest x - ray are all part of the diagnostic evaluation. After all investigation he was diagnosed goodpasture syndrome. The patient played a part in the lung. Antibodies were found in the blood of the patient. medications cyclophosphamide 50 mg OD and corticosteroids table hydrocortisone 240 mg BD was administer. These drugs suppress the immune system's generation of Goodpasture syndrome antibodies. Metroprolol 25mg tablet is used to lower blood pressure. The injection of corticosteroids was given. Plasmapheresis. This therapy, also known as therapeutic plasma exchange, uses a machine to filter blood and remove anti - GBM antibodiesantibodies.

Those who have Goodpasture's Syndrome and have been exposed to hydrocarbons, no factor was shown to be associated to outcome. Hydrocarbon Only 6% of the Goodpasture's Syndrome cases *were* determined to have exposure, and solely one instance had only hydrocarbon exposure and no additional risk factors. It's tough to pinpoint a cause in light of these findings. There is a There is a direct link between hydrocarbon exposure and sickness development, especially when large numbers of people are. substances on a daily basis although disease incidence stays low. This research highlights More prospective study is needed to determine the link between hydrocarbon exposure and Goodpasture's Syndrome, as well as the factors that influence outcomes.

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