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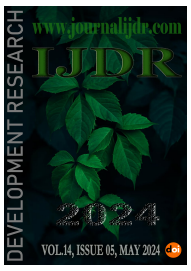

CASE REPORT **OPEN ACCESS**

A CASE OF RECURRENT HEMOPTYSIS PRESENTING WITH HYPOXIA AND PULMONARY INFILTRATES

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ABSTRACT

Diffuse Alveolar Haemorrhage had been one of the most misdiagnosed and under rated causes of hemoptysis leading to mis management in many cases. Many causes of Diffuse Alveolar Haemorrhage arises from Vasculitis and therefore are treatable and controllable. Here we got a Female Child of 13 years from Rural area who had been suffering since 6 years of her age from the hemoptysis and hypoxia and admitted thrice for the same. The initial management were symptomatic and even 1 course of Antitubercular drug. But this patient when presented to us with the triad of Hemoptysis Hypoxia decreased hematocrit and we found a diffuse alveolar Haemorrhage on the HRCT thorax, we instantly evaluated her for cause. The ANCA MPO title was significantly raised and BAL from FOB showed serially increasing hematocrit with multiple hemosiderin laden macrophages. Thus a Diagnosis of DAH due to Microscopic Polyangitis was made. Microscopic polyangitis although occurs in young adults may very rarely be found in children of teen age groups. The early starting of steroids like in this patient would probably prevent future renal involvement as well which is much more dreaded.

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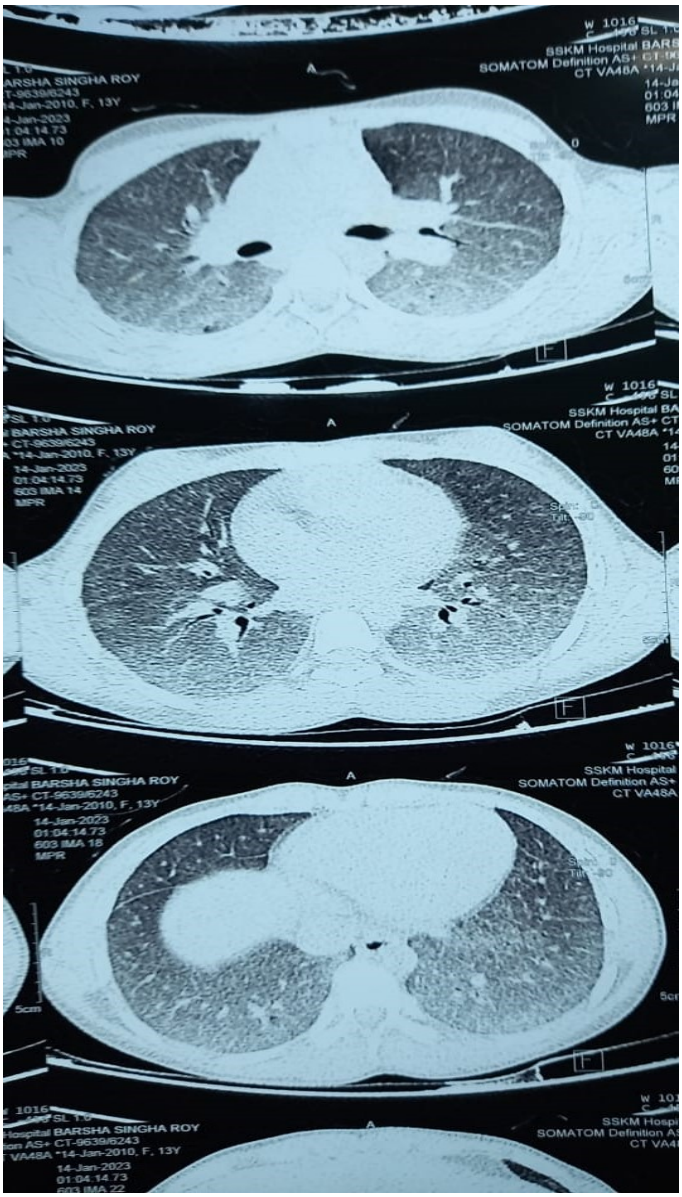
INTRODUCTION

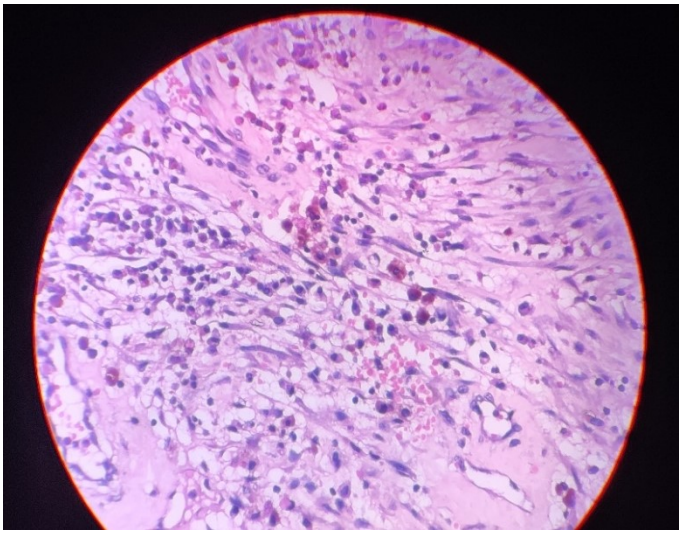
Microscopic Polyangitis usually presents as joint symptoms and vasculitic rash. It has an annual incidence of 2.1 to 17.5 cases per million .Usual age of presentation is between 50 and 60 years. Females are more affected. In a minority of patients it may present at an age below 20 yrs. It is one of the most common cause of Pulmonary Renal syndrome, or alveolar haemorrhage (9.2%) and rapidly progressive glomerulo nephritis. Several Clinical manifestations like fever, joint pain, weight loss and dyspnea are present.

CASE PROPER

A girl from rural Bengal, age 13 years, came with history of recurrent hemotysis and hypoxia since an age of 6 years and three times history of admission in local hospital and other Government Medical College requiring Oxygen and pressure support. She presented to us with a saturation of 56% in room air with history of 2 weeks of hemoptysis and her HRCT scan done outside revealed bilateral pulmonary infiltrates. Initially we diagnosed her as a case of diffuse alveolar haemorrhage and started her on IV methyl prednisolone 1g with antibiotic coverage for 3 days. She responded well to the said therapy and thereafter we thoroughly evaluated the patient. There was a palpable spleen and no other rash or markers of vasculitis. Peripheral blood smear showed Hb 9.8 g/dl, WBC 11000/ cubic cm. Reticulocytes 1%. Urine Routine examination showed 2+ proteinuria and hematuria We sent an ANA with ANA profile which came out as negative. The ANCA profile results were positive for MPO ANCA 3+ and MPO TITRE of 29.63IU /ml. Liver function test showed increased indirect bilirubin and Direct Coombs test was positive. USG showed a 14. 6 gm spleen and preserved corticomedullary differentiation in both Kidneys. Patient was a known hypothyroid on Thyroxine 75 mcg once daily and her recent thyroid profile was normal .Fibre optic Bronchoscopy was done which showed bilateral normal mucosa and 3 serial BAL samples were taken that revealed Perl's stain positive Hemosiderin Laden Macrophages. Patient complained of obsessive thoughts for which an MRI brain was done but there was no evidence of CNS vasculitis. The Patient was diagnosed as a case of Microscopic Polyangitis with DAH and started ion oral Prednisolone 0.mg / Kg. On Subsequent follow ups, the patient had no reccurence since 6 months.



Diffuse alveolar haemorrhage in hrct thorax



Bal stained with hemosiderin showing macrophage under light microscopy

DISCUSSION

DAH is a distinct clinicopathologic syndrome of pulmonary hemorrhage that originates from the pulmonary microcirculation, including the alveolar capillaries, arterioles, and venules. It presents with hemoptysis, anemia, diffuse lung infiltration, and acute respiratory failure. The diagnosis is confirmed by the observation of the accumulation of red blood cells (RBCs), fibrin, or hemosiderin-laden macrophage in the alveolar space on pathologic biopsy1. Hemosiderin, a product of hemoglobin degradation, appears at least 48-72 hours after bleeding and is helpful in distinguishing DAH from surgical trauma. Mild interstitial thickening, organizing pneumonia, or diffuse alveolar damage can also be seen. In our case this was an adolescent girl, quite uncommon as MPA usually affects 30-50 years age group. Also present of polydipsia makes it an unique case.

CONCLUSION

Diffuse alveolar haemorrhage is a life threatening disorder and timely diagnosis and cause specific treatment can prevent further progression . Both clinical as well as laboratory protocols are to be followed in this regard/.

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