ORIGINAL RESEARCH PAPER
Volume-9 | Issue-1 | January-2020 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

POLYCYTHEMIA VERA AS A COMPLICATION OF HIV VIRUS INFECTION–A CASE REPORT

General Medicine

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ABSTRACT

HIV infection is commonly associated with cytopenias. The occurrence of erythrocytosis is rare. With best of my knowledge only 7 cases of polycythemia in HIV have been described on literature.

Material and Method : We report a case of polycythemia vera in a patient infected with HIV. A 52 year old patient by name Bheemsing Lamani, presented with involuntary movement (partial seizure) involving left hand and left side of face, found to be seropositive for HIV in year 2006. At the time of diagnosis of HIV his blood count was normal. Over the next twelve years when he came to our hospital with partial seizure work up revealed superior saggtial sinus thrombosis, erythrocytosis (hb – 20.1 gm/dl), suppressed erythropoietin (1.9 mIU/ml), normal arterial saturation and high pcv (60.7 %). These values are all compatible with diagnosis of polycythemia vera. Anti-retroviral treatment (tenophobic, lamivudin, efavirenz) started at 2010 and his CD4 count is 318/mm3.

Result: After diagnosis of polycythemia vera, he was treated with hydroxyurea and phlevotomy. The patient remain stable and his blood indices became normal with treatment.

Conclusion: we suggest that this is a HIV infection which may lead to emergence of poplycythemia vera. Treatment of HIV does not prevent the occurance of myeloproliferative disorder

KEYWORDS

Polycythemia Vera, HIV infection

INTRODUCTION:

HIV infection is commonly assosiated with cytopenias. The occurrence of erythrocytosis is rare. It has been suggested that HIV plays a role in the generation of myeloproliferative disorders, including polycythemia vera (PV). With best of my knowledge only 7 cases of polycythemia in HIV have been described on literature.

Polycythemia vera is a neoplasm arising in multipotent myeloid stem cell that is characterized by increased marrow production of erythrocytic, granulocytic and megakaryocytic elements.

CASE REPORT:

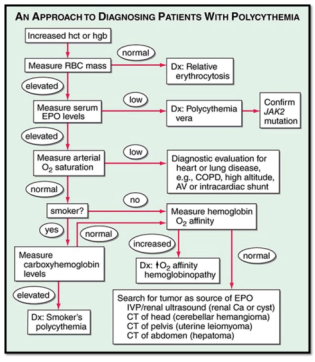
We report a case of polycythemia vera in a patient infected with HIV. A 52 year old patient by name Bheemsing Lamani, presented with involuntary movement (partial seizure) involving left hand and left side of face, found to be seropositive for HIV in year 2006. At the time of diagnosis of HIV his blood count was normal.

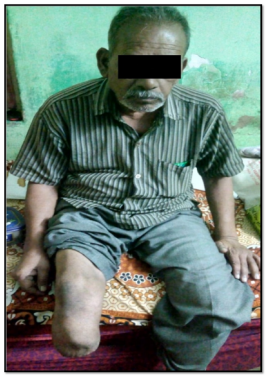
Over the next twelve years when he came to our hospital with partial seizure work up revealed superior saggtial sinus thrombosis, erythrocytosis (hb – 20.1 gm/dl), suppressed erythropoietin (1.9 mIU/ml), normal arterial saturation and high pcv (60.7 %).

These values are all compatible with diagnosis of polycythemia vera. Anti-retroviral treatment (tenophobic, lamivudin, efavirenz) started at 2010 and his CD4 count is 318/mm3.

RESULT

After diagnosis of polycythemia vera, he was treated with hydroxyurea and phlebotomy. The patient remain stable and his blood indices became normal with treatment.





DISCUSSION:-

Polycythemia vera (PV) also is known as primary polycythemia. A mutation, or change, in the body's JAK2 gene is the main cause of PV. HIV is one of the rarest cause for polycythemia vera.

Polycythemia vera is a neoplasm in multipotent myeloid stem cell which leads to erythrocytosis (polycythemia), granulocytosis and thrombocytosis in the peripheral blood. Though it is abnormal proliferation of haematopoietic stem cells, the differentiation is normal and therefore normal red cell, white cell and platelets are produced.

Patient with polycythemia may be asymptomatic or they experience symptoms due to increased red cell mass leading to hyperviscosity and thrombosis causing ischemia.

Patient with polycythemia vera sometime presents with pruritus and peptic ulcerations. Both of this results from increased release of histamine from basophil.

CONCLUSION:

We suggest that this is a HIV infection which may lead to emergence of poplycythemia vera.

Treatment of HIV does not prevent the occurance of myeloproliferative disorder.

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