Primary Human Parvovirus B19 infection in an HIV patient on Anti-retroviral Therapy

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Sir,

Apropos the case report – "Primary Human ParvovirusB19 infection in an HIV patient on Anti-retroviral therapy" JAPI December 2013, Vol 61, Pg 910. We wish to raise the following points.

The initial finding of anaemia was attributed to Zidovudine, but no mention was made regarding the Mean corpuscular volume (MCV). MCV is almost always increased in any patient on Zidovudine, in fact it is used as a marker for adherence even in patients without anaemia[1] whereas chronic parvovirus B19 infection results in chronic normocytic anaemia.[2] Hence, the MCV serves as a rapid and easy differentiator of the two conditions.

Erythropoietin (EPO) levels in a patient with HIV and most anaemias are generally lower for the degree of anaemia and treatment with EPO results in the correction of anaemia. An exception to this is patients with Zidovudine associated anaemia in which EPO levels are high, no EPO levels were done in this case and should generally be done when a Zidovudine associated anaemia is suspected – this is an easily available and simple blood test.[3]

In immunocompromised patients with chronic Parvovirus infections, antigen or DNA detection is mandatory for diagnosis. In severe immunosuppressive states, quite similar to this patient, humoral responses are very inconsistent with poor IgM titre rises.[2] Proerythroblasts are seen in patients with pure red cell aplasia (PRCA) due to diverse causes, and hence the need to confirm the diagnosis of parvovirus B19 with a DNA PCR. This was also not done in the patient.

PRCA is an anaemia with normal leukocyte and platelet count with corrected reticulocyte count <1%,<5% erythroid precursors in the bone marrow in absence of hemolysis.[4] Hemolysis should be ruled out before labeling the cause of anemia as PRCA due to parvovirus. Except for a reticulocyte count, no other tests were done to rule out hemolysis.

We find it odd that so many mandatory tests were not performed in the diagnostic workup and the diagnosis of Parvovirus B19 which was rightly suspected must remain unconfirmed as the finding of cytopathological changes in the bone marrow itself does not abrogate to a single virus. Other viral infections viz., HIV itself, Epstein Barr virus or Hepatitis A or C infections may cause a similar bone marrow picture.[5] Despite mentioning that Parvovirus B19 is a diagnosis of exclusion, no tests to exclude these other viral infections were performed.

References

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