Primary human parvovirus B19 infection in an HIV infected patient on highly active antiretroviral therapy

J Clarke, J D Lee

Treatment of HIV by highly active antiretroviral therapy (HAART) has been shown to stimulate reconstitution of humoral and cell mediated immune competence to various opportunistic infections.

A 36 year old male patient on HAART had a clinical course of primary B19 infection more in keeping with infection in immunocompetent adults than in those with untreated HIV infection, with the documented appearance of serum parvovirus DNA and substitution antibody formation in serial monitoring over 12 months after the primary infection.

The patient was diagnosed as HIV positive in 1992 and had remained well; he was intolerant of attempted antiretroviral therapy which was offered several times between 1995 and 1997. In January 2001, he decided to restart therapy; his viral load was 100 000 copies/ml and peripheral CD4 lymphocyte count was 230 × 10⁶/l. By week 16 of treatment with zidovudine, lamivudine, and efavirenz his viral load became undetectable on ultrasensitive testing but the CD4 count had dropped to 110 × 10⁶/l.

Three months into the new HAART regimen, he developed a maculopapular rash on the arms and trunk, with fever, muscle and joint pains, anorexia, nausea, and cough.

His CD4 count was 180 × 10⁶/l and his viral load was 977 copies/ml. Human parvovirus B19 IgM and IgG detection was positive, consistent with recent infection with B19. Parvovirus B19 dot-blot and PCR DNA were positive on acute samples and negative on serum samples from 4 weeks and 12 weeks before presentation, supporting the diagnosis of primary B19 infection. Screening for other viral infections and syphilis was negative.

A transient drop in haemoglobin was noted in serial estimations (fig 1) but symptomatic anaemia did not develop. He was offered oral antipyretics and analgesics, and was advised to rest. Clinical recovery was complete within 4 weeks.

Adults developing primary human parvovirus B19 (B19) infection may present with arthralgia, fever, and maculopapular rash. Recovery is linked to the development of specific neutralising antibodies. In immunosuppressed patients, including those with HIV infection, such humoral responses are impaired and severe chronic bone marrow suppression and arthritis may occur.

FIGURE 1 Course of haematological changes and symptoms.

REFERENCES

Primary human parvovirus B19 infection in an HIV infected patient on highly active antiretroviral therapy

J Clarke and J D Lee

Sex Transm Infect 2003 79: 336
doi: 10.1136/sti.79.4.336

Updated information and services can be found at:
http://sti.bmj.com/content/79/4/336

These include:

References
This article cites 5 articles, 0 of which you can access for free at:
http://sti.bmj.com/content/79/4/336#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

Drugs: infectious diseases (3182)
HIV / AIDS (2514)
HIV infections (2514)
HIV/AIDS (2514)

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/