## The Advent Of Cytomegalovirus Infection In HIV Infected Patients: A review

Kirubakaran Isaac, Dr Sundar (2004) *The Advent Of Cytomegalovirus Infection In HIV Infected Patients: A review.*[Journal (On-line/Unpaginated)]

Full text available as:



<u>PDF</u> 185Kb

## **Abstract**

Cytomegalovirus is considered as one among the long list of latent infections in humans that although normally controlled by the cellular immune response, gets activated after HIV infection takes its role on infecting the T4 lymphocytes. Clinical disease due to Cytomegalovirus has been recognized in up to 40% of patients with advanced HIV disease. The clinical syndromes most commonly associated include chorioretinitis, esophagitis, colitis, pneumonitis, adrenalitis and neurological disorders. Cytomegalovirus infections are usually diagnosed clinically and by serological tests for CMV immunoglobulin. Chemotherapy using systemic agents, including ganciclovir, intravenous foscarnet and intravenous cidofovir is effective. New agents, as for example an anti-sense agent against cytomegalovirus, appear promising.

Item Type:	Journal (On-line/Unpaginated)
Keywords:	Cytomegalovirus infection, Human immunodeficiency virus, CMV colitis, CMV retinitis, AIDS
Subjects:	JOURNALS > Online Journal of Health and Allied Sciences
ID Code:	3497
Deposited By:	Kakkilaya Bevinje, Dr. Srinivas
Deposited On:	16 Mar 2004
Last Modified:	11 Mar 2011 08:55

## **References in Article**

Select the SEEK icon to attempt to find the referenced article. If it does not appear to be in cogprints you will be forwarded to the paracite service. Poorly formated references will probably not work.

- 1. Vancikova Z, Dvorak P. Cytomegalovirus infection in immunocompetent and immunocompromised individuals a review. Curr Drug Targets Immune Endocr Metabol Disord 2001; 1:179-87.
- 2. Lerner CW, Tapper ML. Opportunistic infection complicating acquired immune deficiency syndrome. Clinical features of 25 cases. Medicine 1994; 63:155-164.
- 3. Drew WL. Cytomegalovirus infection in patient with AIDS. J Infect Dis 1988a; 158:449-456.
- 4. Hoover DR, Saah AJ, Bacellar H, Phair J, Detels R, Anderson R, et al. Clinical manifestations of AIDS in the era of pneumocystis prophylaxis. Multicenter AIDS Cohort Study. N Engl J Med 1993; 329:1922-1926.
- 5. Deayton JR. Changing trends in cytomegalovirus disease in HIV-infected patients. HERPES 2001; 8:37-40.
- 6. Drew WL. Diagnosis of cytomegalovirus infection. Rev Infect Dis 1988b; Suppl 3:468-476.
- 7. Krech U. Complement-fixing antibodies against cytomegalovirus in different parts of the world. Bull World Health Organ 1973;49:103-106.
- 8. Macher AM, Reichert CMV, Straus SE, Longo DL, Parrillo J, Lane HC, et al. Death in AIDS patient: role of cytomegalovirus. N Engl J Med 1983;309:1454.
- 9. Douglas DR, Richard JW, Fredrick G.H. Clinical Virology. In: Griffiths PD, Emery VC, editors. Cytomegalovirus Chapter-21, Churchill Livingstone Inc; 1997. pp. 445-465. This site has been permanently archived. This is a static copy provided by the University of \$0. Pale lapto Pelaney KM, Moorman AC, Loveless MO, Fuhrer J, Satten GA, et al. Declining morbidity and mortality among patients with advanced human immunodeficiency virus infection. N Engl J Med 1998; 338:853-860.

http://cogprints.org/3497/

- 11. Salmon D, Mazeron MC, Chaput S, et al. CMV DNA, pp65 antigenemia and low CD4 count remain risk factors for CMV disease in patients receiving HAART. AIDS 2000; 14:1041-1049.
- 12. Labetoulle M, Goujard C, Frau E, Rogier H, Niessen F, Furlan V, et al. Cytomegalovirus retinitis in advanced HIV-infected patients treated with protease inhibitors: incidence and outcome over 2 years. AIDS 1999; 22:228-234.
- 13. Jackson JB, Erice A, Englund JA, Edson JR, Balfour HH. Prevalence of cytomegalovirus antibody in hemophiliacs and homosexuals infected with human immunodeficiency virus type 1. Transfusion 1988; 28:187-189.
- 14. Drew WL, Sweet ES, Miner RC, Mocarski ES. Multiple infections by cytomegalovirus in patients with acquired immunodeficiency syndrome: documentation by Southern blot hybridization. J Infect Dis 1984; 150:952-963.
- 15. Palestine AG, Polis MA, De Smet MD, Baird BF, Falloon J, Kovacs JA, et al. A randomized, controlled trial of foscarnet in the treatment of cytomegalovirus retinitis in patients with AIDS. Ann Intern Med 1991; 115:665-673.
- 16. Jacobson MA, Mills J. Serious cytomegalovirus disease in the acquired immunodeficiency syndrome (AIDS). Ann Intern Med 1988; 108:585–594.
- 17. Kupperman BD, Petty JG, Richman DD, Mathews WC, Fullerton SC, Rickman LS, et al. Correlation between CD4 counts and prevalence of cytomegalovirus retinitis and human immunodeficiency virus related noninfectious retinal vasculopathy in patients with acquired immunodeficiency syndrome. Am J Ophthalmol 1993; 115:575-582.
- 18. Fahey JL, Flemming DS. AIDS / HIV Reference Guide for Medical Professional. 4th ed. Center for Inter disciplinary Research in Immunology & Disease (CIRID) at VCLA. Williams and Wilkins A Waverly Company; 1996. pp. 176-180.
- 19. Deayton JR, Wilson P, Sabin CA, Davey CC, Johanson MA, Emery VC, et al. Changes in the natural history of cytomegalovirus retinitis following the introduction of highly active antiretroviral therapy. AIDS 2000; 14:1163-1170.
- 20. Deayton JR, Shannon-Lowe C, Wilson P, Johnson MA, Griffiths PD, Emery VC, et al. Recurrence of CMV viremia and development of anti-CMV drug resistance in patients receiving highly active antiretroviral therapy after CMV retinitis. 5th International Congress on Drug Therapy in HIV Infection, Glasgow, UK. 2000; Abstr.
- 21. Basil CG, Vincent TD. AIDS & Malignancies Current Concepts and Perspectives, John Wiley & sons; 1996 pp. 258-259.
- 22. Frager DH, Frager JD, Wolf EL, Rand LG, St Onge G, Mitsudo S, et al. Cytomegalovirus colitis in acquired immune deficiency syndrome: Radiologic spectrum. Gastrointest Radiol 1986; 11: 241-246.
- 23. Wilcox CM, Diehl DL, Cello JP, Margaretten W, Jacobson MA. Cytomegalovirus esophagitis in patients with AIDS. A clinical, endoscopic, and pathologic correlation. Ann Intern Med 1990; 113:589-593.
- 24. Bonacini M. Pancreatic involvement in human immunodeficiency virus infection. J Clin Gastroenterol 1991 Feb;13(1):58-64.
- 25. Brivet FG, Naveau SH, Legmaigne GF, Dormont J. Pancreatic lesions in HIV-infected patients. Baillieres Clin Endocrinol Metab 1994; 8:859-877.
- 26. Murray JF, Felton CP, Garay SM, Gottlieb MS, Hopewell PC, Stover DE, et al. Pulmonary complications of the acquired immunodeficiency syndrome: Report of a National Heart, Lung and Blood Institute Workshop. N Engl J Med 1984; 310:1682-1688.
- 27. Wallace JM, Hannah J. Cytomegalovirus pneumonitis in patients with AIDS. Findings in an autopsy series. Chest 1987; 82:198-203.
- 28. Simpson DM, Taglieti M. Neurologic manifestations of HIV infection. Ann Intern Med 1994; 121:769-785.
- 29. Miller RG, Storey JR, Greco CM. Ganciclovir in the treatment of progressive AIDS-related polyradiculopathy. Neurology 1990; 40:569-574.
- 30. Hawley DA, Schaefer JF, Schulz DM, Muller J. Cytomegalovirus encephalitis in acquired immunodeficiency syndrome. Am J Clin Pathol 1983; 80:874-877.
- 31. Van der Meer JT, Drew WL, Bowden RA, Galasso GJ, Griffiths PD, Jabs DA, et al. Summary of the International Consensus Symposium on Advances in the Diagnosis, Treatment and Prophylaxis and Cytomegalovirus Infection. Antiviral Res 1996; 32:119-140.
- 32. Rasmussen L, Morris S, Zoipeto D, Fessel J, Wolitz R, Dowling A, et al. Quantitation of human cytomegalovirus DNA from peripheral blood cells of human immunodeficiency virus-infected patients could predict cytomegalovirus

http://cogprints.org/3497/

retinitis. J Infect Dis 1995; 171:177-182.

- 33. Grefte JM, van der Gun BT, Schmolke S, van der Giessen M, van Son WJ, Plachter B, et al. The lower matrix protein pp65 is the principal viral antigen present in peripheral blood leukocytes during an active cytomegalovirus infection. J Gen Virol 1992; 73:2923-2932.
- 34. Dodt KK, Jacobsen PH, Hofmann B, Meyer C, Kolmos HJ, Skinhøj P, et al. Development of cytomegalovirus (CMV) disease may be predicted in HIV-infected patients by CMV polymerase chain reaction and the antigenemia test. AIDS 1997; 11:F21-F28.
- 35. Shinkai M, Bozzette SA, Powderly W, Frame P, Spector SA. Utility of urine and leukocyte cultures and plasma DNA polymerase chain reaction for identification of AIDS patients at risk for developing human cytomegalovirus disease. J Infect Dis 1997; 175:302-308.
- 36. Chernoff DN, Miner RC, Hoo BS, Shen LP, Kelso RJ, Jekic-McMullen D, et al. Quantification of cytomegalovirus DNA in peripheral blood leukocytes by a branched-DNA signal amplification assay. J Clin Microbiol 1997; 35:2740-2744.
- 37. Emery VC, Cope AV, Sabin CA, Burroughs AK, Rolles K, Lazzarotto T, et al. Relationship between IgM antibody to human cytomegalovirus load, donor and recipient serostatus, an administration of methylprednisolone as risk factors for cytomegalovirus disease after liver transplantation. J Infect Dis 2000; 182:1610-1615.
- 38. Lazzarotto T, Ripalti A, Bergamini G, Battista MC, Spezzacatena P, Campanini F, et al. Development of a new Cytomegalovirus (CMV) immunoglobulin M (IgM) immunoblot for detection of CMV-specific IgM. J Clin Microbiol 1998; 36:3337-3341.
- 39. Orellana J, Lieberman RM, Teich SA. Color atlas of ocular manifestations of AIDS. Igaku and New York: Shoin Medical Publishers, Inc; 1995. pp. 46–49.
- 40. Wilcox CM, Schwartz DA, Clark WS. Esophageal ulceration in human immunodeficiency virus infection. Causes, response to therapy, and long-term outcome. Ann Intern Med 1995; 123: 143-149.
- 41. Bylsma SS, Achim CL, Wiley CA, Gonzalez C, Kuppermann BD, Berry C, et al. The predictive value of cytomegalovirus retinitis for cytomegalovirus encephalitis in acquired immunodeficiency syndrome. Arch Ophthalmol 1995; 113:89-95.
- 42. Arribas JR, Clifford DB, Fichtenbaum CJ, Commins DL, Powderly WG, Storch GA. Level of Cytomegalovirus (CMV) DNA in cerebrospinal fluid of subjects with AIDS and CMV infection of the Central nervous system. J Infect Dis 1995; 172:527-531.
- 43. Psohlavec J, Forstl M, Horácek J, Veselský Z. The Immune System and Cytomegalovirus Infection. Klin. Mikrobiol. Inf. Lék. 1999; 5:284.
- 44. Drew WL. Cytomegalovirus infection in patients with AIDS. Clin Infect Dis 1992; 14:608-615.
- 45. Buhles WC, Mastre BJ, Tinker AJ, Strand V, Koretz SH. Syntex Collaborative Treatment Study Group. Ganciclovir treatment of life-or Sight-threatening cytomegalovirus infection experience in 314 immunocompromised patients. Rev Infect Dis 1998; Suppl 3:S495-S504.
- 46. Chrisp P, Clissold SP. Foscarnet. A review of its antiviral activity, pharmacokinetic properties and therapeutic use in immunocompromised patients with cytomegalovirus retinitis. Drugs 1991; 41:104-129.
- 47. Jacobson MA, Drew WL, Feinberg J, O'Donnell JJ, Whitmore PV, Miner RD, et al. Foscarnet therapy for ganciclovir-resistant cytomegalovirus retinitis in patients with AIDS. J Infect Dis 1991; 163:1348-5131.
- 48. De Clercq E, Holy A, Rosenberg I, Sakuma T, Balzarini J, Maudgal PC. A novel selective broad-spectrum anti-DNA virus agent. Nature 1986; 323: 464-467.
- 49. Martin D, Sierra-Madero J, Walmsey S, et al. Valganciclovir versus ganciclovir as induction therapy for newly diagnosed cytomegalovirus retinitis: a randomized controlled study. VII Conference on Retroviruses and Opportunistic Infections. San Francisco, CA; 2000. Abstr. 119.
- 50. Lalezari JP, Wang LH, Miller RC, et al. In vivo anti-CMV activity and safety of oral 1263W94 in HIV-infected subjects with asymptomatic CMV shedding. XI International Conference on Antiviral Research. San Diego, CA; 1998. Abstr. 110.

http://cogprints.org/3497/

- 51. Gallant JE, Moore RD, Richman DD, Keruly J, Chaisson RE. Incidence and natural history of cytomegalovirus disease in patients with advanced human immunodeficiency virus disease treated with zidovudine. The Zidovudine Epidemiology Study Group. J Infect Dis 1992; 166:1223-1227.
- 52. Jonjic S, Pavic I, Polic B, Crnkovic I, Lucin P, Koszinowski UH. Antibodies are not essential for the resolution of primary cytomegalovirus infection but limit dissemination of recurrent virus. J Exp Med 1994; 179:1713-1717.
- 53. De Jong MD, Galasso GJ, Gazzard B, Griffiths PD, Jabs DJ, Kern ER. et al. Summary of the II International Symposium on Cytomegalovirus. Antiviral Res 1998; 39:141-162.
- 54. Plotkin SA. Cytomegalovirus vaccine. Am Heart J 1999; 138:484. S484-7.
- 55. Drew WL, Lalezari J. Cytomegalovirus: disease syndromes and treatment. Curr Top Inf Dis 1999; 19:16-29.
- 56. Drew WL, Lalezari J. Cytomegalovirus and HIV In: HIV InSite Knowledge Base; 2002
- 57. Hutcherson SL, Palestine AG, Cantrill HL, et al. Anti-sense oligonucleotide safety and efficacy for CMV retinitis in AIDS patients. In: American Society Microbiology. Proceedings of the 35th Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, CA. Washington, DC; 1995. Abstr. H-136.
- 58. Zacny VL, Chamberlain SD, Townsend LB, et al. Activity against Epstein-Barr virus of benzimidazole riboside 126 W94 (5,6 dichloro-2 (isoproylamino) -1-beta-L-ribofuranosyl-1H- benzimidazoles). In: American Society Microbiology. Proceedings of the 37th Interscience Conference on Antimicrobial Agents and Chemotherapy, Toronto, Canada. Washington, DC; 1997. Abstr. H-69.
- 59. Lalezari JP, Drew WL, Jordan C, et al. In vivo anti-CMV activity and safety of oral lobucavir in HIV-infected patients. In: Infectious Diseases Society of America (IDSA). Proceedings of the 4th Conference on Retroviruses and Opportunistic Infections, Washington, DC. Alexandria, VA: IDSA; 1997. Abstr. 301.
- 60. Deayton J, Mocroft A, Wilson P, Emery VC, Johnson MA, Griffiths PD. Loss of cytomegalovirus (CMV) viraemia following highly active antiretroviral therapy in the absence of specific anti-CMV therapy. AIDS 1999; 13:1203-1206

## Metadata

- ASCII Citation
- Atom
- BibTeX
- <u>Dublin Core</u>
- EP3 XML
- EPrints Application Profile (experimental)
- EndNote
- HTML Citation
- ID Plus Text Citation
- JSON
- METS
- MODS
- MPEG-21 DIDL
- OpenURL ContextObject
- OpenURL ContextObject in Span
- RDF+N-Triples
- RDF+N3
- RDF+XML
- Refer
- Reference Manager
- Search Data Dump
- Simple Metadata
- YAML

Repository Staff Only: item control page

http://cogprints.org/3497/ 4/4