

Foslovudine



Drug Class: Nucleoside Reverse Transcriptase Inhibitors

Drug Description

Foslovudine, also known as foslovudine tidoxil, is a prodrug of alovudine, a nucleoside reverse transcriptase inhibitor. [1]

HIV/AIDS-Related Uses

Foslovudine is being evaluated in Phase II clinical trials for the treatment of HIV-1 infection in patients who have multiple-NRTI-resistant HIV-1 infection.[2] [3]

Pharmacology

Foslovudine is an enhanced prodrug (through addition of a single phosphate group) of alovudine, a thymidine-analogue nucleoside reverse transcriptase inhibitor. Foslovudine is covalently linked to a specific lipid-moiety, which should reduce adverse effects associated with alovudine treatment. Foslovudine is expected to have altered pharmacokinetics and distribution compared with alovudine.[4] [5]

In vitro, foslovudine inhibits the replication of HIV group M subtypes A through G. In a murine tissue study, low concentrations of foslovudine were distributed to fat and bone marrow, which suggests a low potential for hematopoietic toxicity.[6]

Foslovudine is being studied in Phase II trials in treatment-naïve and treatment-experienced patients infected with HIV-1. In a 14-day, dose-finding, Phase II study in treatment-naïve patients, foslovudine exhibited dose-dependent efficacy across 10- to 40-mg doses. Mean viral load reduction at day 15 was 60% for the 5-mg dose, nearly 80% for the 10-mg dose, 85% for the 20-mg dose, and 90% for the 40-mg dose compared with placebo (nearly 0% change in viral load). Foslovudine is currently being studied in a Phase II trial in treatment-experienced patients.[7]

Adverse Events/Toxicity

Foslovudine doses of 5 to 40 mg were well tolerated in treatment-naïve, HIV-infected patients for 14 days. Adverse effects were infrequent and

included grade 1 nausea, vomiting, and diarrhea and grade 2 headache.[8]

Clinical Trials

For information on clinical trials that involve Foslovudine, visit the ClinicalTrials.gov web site at <http://www.clinicaltrials.gov>. In the Search box, enter: Foslovudine AND HIV Infections.

Dosing Information

Mode of Delivery: Oral.[9]

Dosage Form: Foslovudine 5, 10, 20, and 40 mg have been studied in Phase I and II clinical trials. Foslovudine 10- to 40-mg doses are being studied in ongoing Phase II trials.[10] [11]

Other Names

HDP 99.0003[12]

Further Reading

CahnP., et al. A phase-II study of 14 days monotherapy with the nucleoside-analogue Foslovudine Tidoxil in treatment-naïve HIV-1 infected adults. Poster exhibition: 4th IAS Conference on HIV Pathogenesis, Treatment and Prevention: Abstract no. WEPEB114LB. Available at: <http://aids2008.org/Abstracts/A200705533.aspx>. Accessed 09/08/08.

Manufacturer Information

Foslovudine
Heidelberg Pharma
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D-68526 Ladenburg
Baden-Wurtemberg, Germany
49-6203-1009-40

For More Information

Contact your doctor or an AIDSinfo Health Information Specialist:

Fosaltvudine



For More Information (cont.)

- Via Phone: 1-800-448-0440 Monday - Friday, 12:00 p.m. (Noon) - 5:00 p.m. ET
- Via Live Help: http://aidsinfo.nih.gov/live_help Monday - Friday, 12:00 p.m. (Noon) - 4:00 p.m. ET

References

1. Heidelberg Pharma - News: HEIDELBERG PHARMA AG starts second clinical phase II study with FOSALVUDINE [Press Release], November 12, 2007. Available at: <http://www.heidelberg-pharma.com/news/popup/20071112.html>. Accessed 09/08/08.
2. Heidelberg Pharma - News: HEIDELBERG PHARMA AG starts second clinical phase II study with FOSALVUDINE [Press Release], November 12, 2007. Available at: <http://www.heidelberg-pharma.com/news/popup/20071112.html>. Accessed 09/08/08.
3. Heidelberg - Products - Pipeline: Fosaltvudine. Available at: <http://www.heidelberg-pharma.com/products/fosaltvudine.html>. Accessed 09/08/08.
4. IAS Conf HIV Pathogen, Treat, Prevent- 4th, 2007 - Abstract WEPEB114LB.
5. IAS Conf - 16th, 2006 - Abstract ThPE0025.
6. IAS Conf - 16th, 2006 - Abstract ThPE0025.
7. Heidelberg - HEIDELBERG PHARMA AG starts second clinical phase II study with FOSALVUDINE [Press Release], November 12, 2007. Available at: <http://www.heidelberg-pharma.com/news/popup/20071112.html>. Accessed 09/08/08.
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11. Heidelberg Pharma - News: HEIDELBERG PHARMA AG starts second clinical phase II study with FOSALVUDINE [Press Release], November 12, 2007. Available at: <http://www.heidelberg-pharma.com/news/popup/20071112.html>. Accessed 09/08/08
12. Heidelberg - Products - Pipeline: Fosaltvudine. Available at: <http://www.heidelberg-pharma.com/products/fosaltvudine.html>. Accessed 09/08/08.