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study population (12.75%). Thus we can confirm that the presence of vaginal and cervical ulcers may be considered an additional risk factor for HIV transmission. Although our study was performed on sera belonging to women considered at risk for HIV infections, only 2% of them were certainly infected by HIV-1 and none was infected by HIV-2. This percentage is consistent with another study on an analogous sample of 100 women in February 1993 (data not shown).

During the last 10 years, the war in Angola has greatly limited movement of people between Luanda province and the bordering provinces of Congo, Zaire and Zambia. Probably the low prevalence of HIV in Luanda is due to the partial isolation of the city during the spread of HIV pandemic in Sub Sahara Africa.

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- 1 Bottinger B, Palme IB, da Costa JL, Dias LF, Biberfeld G. Prevalence of HIV1 and HIV2/HTLV-IV infection in Luanda and Cabinda, Angola. J Acquir Immune Defic Syndr 1988;1:8-12.
- Syntar 1968;1:8-12.
   Santos Ferreira MO, Cohen T, Lourenco MH, Almeida MJ, Chamaret S, Montagnier L. A study of seroprevalence of HIV1 and HIV2 in six provinces of People's Republic of Angola: clues to spread of HIV infection. J Acquir Immune Defic Syndr 1990;3:780-6.
   Pepin J, Dalby M, Gaye I, Berry N, Whittle H. Long term

3 Pepin J, Dalby M, Gaye I, Berry N, Whittle H. Long term follow up of subjects with an indeterminate HIV-2 Western Blot. AIDS 1991;5:1274-5.

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## Anaphylaxis due to liposomal amphotericin (AmBisome)

As patients with AIDS are living longer, increasing numbers are developing systemic infections with *Cryptococcus neoformans* necessitating intravenous amphotericin therapy.

Liposomal amphotericin B (AmBisome) is a recently introduced preparation and is claimed to be less commonly associated with adverse effects than conventional amphotericin B. It is therefore a reasonable alternative to use in patients with systemic fungal infection where conventional amphotericin B has been previously associated with renal toxicity.

Two cases of anaphylaxis due to liposomal amphotericin in patients who were not allergic to amphotericin have recently been described.<sup>2</sup> We report a further case of anaphylaxis occurring in a patient being given his first injection of AmBisome for treatment of cryptococcal meningitis.

A 28 year old male patient who had been diagnosed HIV positive 9 years previously was admitted with a week's history of headache, photophobia and vomiting. Cryptococcal meningitis had been successfully treated 9 months previously with conventional intravenous amphotericin B. Subsequently, the patient was maintained on fluconazole but relapsed six months later. Initially, this was treated with intravenous amphotericin B. However, signs of renal toxicity, as shown by rising creatinine and urea, developed after two days and fluconazole was substituted. The patient recovered and again was maintained on fluconazole. After a further month this was changed to itraconazole because of nausea due to fluconazole.

On admission, medication included dapsone 50mg daily, pyrimethamine 50 mg weekly, and itraconazole 400 mg daily. CT of the brain was normal and examination of CSF showed 22 white blood cells/mm<sup>3</sup> (the majority were lymphocytes) and two yeast cells. Both CSF and serum were positive for cryptococcal antigen. Relapse of cryptococcal meningitis was diagnosed and intravenous liposomal amphotericin B (AmBisome) at a dose of 1 mg/kg was commenced. Within seconds of starting the infusion the patient vomited and complained of epigastric pain and abdominal tightness. Bronchospasm, facial flushing and sweating were noted. The infusion was immediately discontinued and symptoms settled within 4 hours. Subsequent treatment comprised of flucytosine and itraconazole and the patient made an uneventful recovery.

It is well recognised that HIV positive patients have a higher incidence of adverse drug reactions compared with the general population and these cases further highlight the need for care to be taken when giving medication to this group of patients.

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- 1 Liposomal amphotericin. Drug and Therapeutics Bulletin
- Laing RBS, Milne LJR, Leen CLS, Malcolm GP, Steers AJW. Anaphylactic reactions to liposomal amphotericin. Lancet 1994;344:682.

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## Pre-treatment with hydration and electrolytes may prevent dose limiting toxicities during foscarnet induction therapy

Foscarnet (Foscavir, Astra Pharmaceuticals) has been used for the treatment of