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Sir,

High dosage of oral valaciclovir as an alternative treatment of varicella zoster acute retinal necrosis syndrome

The therapy of varicella zoster virus (VZV) acute retinal necrosis syndrome by oral valganciclovir was recently reported by Savant *et al*.[1] This therapy was given to a 30-year-old woman as an alternative treatment option in herpes viral retinitis. Oral therapy has the great advantage to avoid prolonged intravenous (i.v.) drug administration and hospital admission. Valganciclovir, a L-valyl ester prodrug with improved bioavailability, is hydrolysed in the gut and liver and produces ganciclovir exposure similar to i.v. ganciclovir. Ganciclovir differs from acyclovir by the lack of an hydroxyl group on the acyclic side chain, with enhanced activity against cytomegalovirus (CMV), but similar activity against herpes simplex and VZ virus.[2] However, this modification is associated with cytotoxicity and serious adverse effects in humans including neutropenia, anaemia, diarrhoea. In addition, it has been shown to be mutagenic, teratogenic, and carcinogenic in animal models. Ganciclovir has also the potential to permanently affect fertility in animal and humans (Product monograph, Roche Basel, CH, Switzerland).

Indeed, ganciclovir and valganciclovir are exclusively registered for the treatment of life or sight-threatening CMV infections.

Our treatment option in acute retinal necrosis syndrome is rather high dosage oral valaciclovir. The L-valylester valaciclovir offers an oral bioavailability of 54.2%, which is about 4.5 times higher than oral aciclovir. The recommended dosage in VZV infection is valaciclovir 1000 mg t.i.d. that produces AUC similar to i.v. aciclovir at the dosage of 5 mg/kg t.i.d. However, pilot clinical studies could demonstrate that higher dosage of oral valaciclovir 2000 mg 4 times daily could produce the daily AUC of 109 μg h, which was close to the one obtained by i.v. aciclovir at the dosage of 10 mg/kg t.i.d. (AUC of 107 mg h).[3] The limit of the administration of high dosage of valaciclovir is mostly the renal and CNS toxicity of the drug that can be avoided by adequate hydratation and dose adjustment to creatinine clearance. These high valaciclovir dosages have been indeed well tolerated when prescribed to kidney transplant recipients for the prophylaxis of CMV disease, with only a slight excess in CNS adverse effects such as hallucination and confusion.[4,5] We suggest that higher dosage of oral valaciclovir could be a good alternative therapy to i.v. aciclovir.

References

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Sir,

Characteristics and surgical outcomes of paediatric retinal detachment

Yokoyama *et al* have given us an insight into the characteristics and aetiology of rhegmatogenous retinal detachment (RRD) in paediatric population. Interestingly, among the 49 patients, no one suffered from rhegmatogenous retinal detachment as a result of retinopathy of prematurity (ROP) while up to 13% of cases were attributed to an uncommon retinal disease, familial exudative vitreoretinopathy (FEVR).[1] This spectrum of diseases pattern, however, showed deviation from what have been observed by previous studies.[2,3]