Fungal Endophthalmitis Successfully Treated with Intravitreal Voriconazole Injection

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A 29-year-old woman was admitted because of acute erythroid leukemia. Induction therapy was unsuccessful, and cord blood transplantation (CBT) was planned. In spite of no ocular symptom, ophthalmoscopy as a pre-transplant workup revealed left fungal endophthalmitis (Picture 1A). Since intravenous administration of voriconazole (VRCZ) (6 mg/kg twice on day 1 followed by 4 mg/kg twice daily for 12 days) was ineffective, according to the Infectious Diseases Society of America (IDSA) guidelines (1), a single dose of intravitreal injection of VRCZ (100 μg/0.1 mL) was added after written informed consent was obtained. The intravitreal injection resulted in rapid improvement of the endophthalmitis (Picture 1B). Subsequently, she underwent CBT after a myeloablative conditioning regimen and achieved complete remission. Systemic VRCZ was continued to prevent the progression of fungal infection. Interestingly, after CBT, fungal endophthalmitis improved further (Picture 1C).

Kramer et al reported the first successful use of intravitreal VRCZ for Aspergillus endophthalmitis (2). We consider that intravitreal VRCZ could be one of the treatment strategies for fungal endophthalmitis if systemic therapy is ineffective. Furthermore, we recommend adding ophthalmoscopy to the routine workup before stem cell transplantation.

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References