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Case Presentation

Succesfull Intravenoz Foscarnet Desentisisation

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ABSTRACT

CMV is a life threatening, opportunistic pathogen associated with significant morbidity and mortality in immunocompromised individuals. Cytomegalovirus (CMV) retinitis is the most common ocular opportunistic complication and is a serious cause of vision loss in immunocompromised patients. To our knowledge, this is the first case of successful desensitization due to an early hypersensitivity reaction to foscarnet. Our result shows that desensitization to foscarnet is safe and effective in allergy.

Keywords: Cytomegalovirus; Life-threatening; Allergy

INTRODUCTION

CMV is a life threatening, opportunistic pathogen associated with significant morbidity and mortality in immunocompromised individuals [1]. Citomegalovirus (CMV) retinitis is the most common ocular opportunistic complication and is a serious cause of vision loss in immunocompromised patients. Existing drugs such as ganciclovir, valganciclovir, cidofovir, and foscarnet have been highly active against CMV, but long-term treatment with these approved drugs is associated with dose-limiting toxicities and thus limits their use.

CASE PRESENTATION

The patient, who was followed up with the diagnoses of multiple food allergies, severe atopic dermatitis, hyperkeratosis, nail dystrophy, hypogammaglobulinemia (low Igg and Igm) for 2 months, was given human immunoglobulin monthly starting from the age of 20 months. No pathogenic mutation was found in the patient who underwent whole exon screening for primary immunodeficiency. Anti-Ige treatment (omalizumab) was started in the patient who did not respond to the topical and systemic corticosteroid treatment given for atopic dermatitis. Pneumonia was observed in the lung imaging of the patient who was hospitalized at the age of 3 because of high fever and sleepiness. Cmv DNA 199, 570 copies were detected. The patient was started on IV ganciclovir therapy. Her treatment with valaganciclovir was continued for 11 months in her outpatient follow-up. Valaganciclovir treatment was discontinued in the patient whose DNA was found to be negative. Routine checks continued. No pathology was observed in the neurological examinations for vision loss of the patient who applied with the complaint of decreased vision at the 2nd month follow-up [2].

RESULTS AND DISCUSSION

In the fundus examination of the eye, diffuse exudate and periphlebitis around the right optic disc, opacity, and opacities in the inferior retina of the left eye were observed. CMV retinitis was primarily considered in the patient and intravenous ganciclovir and foscarnet treatment was started. At the 2nd hour of foscarnet treatment, diffuse facial flushing and macular erythema were observed on the body, but no findings suggestive of anaphylaxis such as cough, shortness of breath, and hypotension were found (Figure 1).

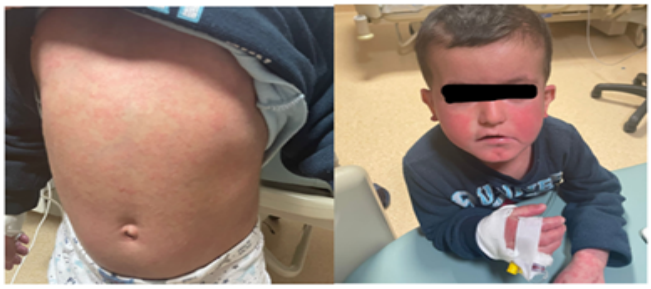

Figure 1: Diagnoses of multiple food allergies, severe atopic dermatitis, hyperkeratosis, nail dystrophy.

Desensitization protocol

Since the patient had vision loss and was not suitable for intra virtual treatment, desensitization was performed to continue

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foscarnet treatment. Skin prick test and intradermal test could not be performed because the patient had previously received steroids due to existing atopic dermatitis and macular erythema. It was prepared in three different concentrations (0.03 mg/ml, 0.3 mg/ml, and 3 mg/ml) to start the treatment as soon as possible due to vision loss. Premedication was administered by giving 1 mg/kg of antihistamine and 1 mg/kg of steroid. It was applied in 12 steps with increasing doses every 15 minutes. The total dose reached 720 mg. The patient completed desensitization without any problems such as increased rash, cough, shortness of breath, and angioedema. The doses that the patient should take every 8 hours were continued to be administered without any problems (Table 1) [3].

Table 1: The doses that the patient should take every 8 hours were continued to be.

	Dilution	Applied Volume	Dose	Minute
1/100	0.03 mg/ml	0.625 ml	0.0187 mg	15 min
1/100	0.03 mg/ml	1.25 ml	0.0375 mg	15 min
1/100	0.03 mg/ml	2.5 ml	0.075 mg	15 min
1/100	0.03 mg/ml	5 ml	0.15 mg	15 min
01-Oct	0.3 mg/ml	1.25 ml	0.375 mg	15 min
01-Oct	0.3 mg/ml	2.5 ml	0.75 mg	15 min
01-Oct	0.3 mg/ml	5 ml	1.5 mg	15 min
01-Oct	0.3 mg/ml	10 ml	3 mg	15 min
01-Jan	3 mg/dl	2.5 ml	7.5 mg	15 min
01-Jan	3 mg/dl	5 ml	15 mg	15 min
01-Jan	3 mg/dl	10 ml	30 mg	15 min
01-Jan	3 mg/dl	194. 375 ml	661.59 mg	2.42 hour
Total		240 ml	720 mg	

CONCLUSION

To our knowledge, this is the first case of successful desensitization due to an early hypersensitivity reaction to foscarnet. Our result shows that desensitization to foscarnet is safe and effective in allergy. Because of a possible allergic reaction during drug desensitization, finding an alternative drug for treatment is the first choice. However, if there is no other option, drug desensitization should be considered under the supervision of an allergist in severe anaphylaxis [3].

REFERENCES

1. Vadlapudi AD, Vadlapatla RK, Mitra AK. Current and emerging antivirals for the treatment of cytomegalovirus (CMV) retinitis: an update on recent patents. Recent Pat Antiinfect Drug Discov. 2012;7(1):8-18.
2. Cernadas JR, Brockow K, Romano A. General considerations on rapid desensitization for drug hypersensitivity-a consensus statement. Allergy. 2010;65(11):1357-1366.
3. Demoly P, Adkinson NF, Brockow K. International Consensus on drug allergy. Allergy. 2014;69(4):420-437.