
Poster

[P27-2] P27-2: Anti-infective drugs (7): Antifungals

Chair: Yoh Takekuma, Japan

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[P27-2-9] Effective plasma concentrations of itraconazole and its active metabolite for pulmonary aspergillosis

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Background

Itraconazole (ITCZ) is widely used for the treatment of pulmonary aspergillosis. There are several reports on its effective concentration, but it is not clear yet. In this study, the relationship between the efficacy and the concentrations of ITCZ and its active metabolite, hydroxylated ITCZ (OH-ITCZ) was analyzed.

Methods

Thirty-four patients with pulmonary aspergillosis who were administered orally 200 mg of ITCZ once a day were included. The concentrations of ITCZ and OH-ITCZ in plasma collected in the trough were measured by high performance liquid chromatography method. Relationships between their concentrations and treatment results were analyzed.

Results

Of 34 cases, 15 cases were judged to be improved, but 19 cases were judged to be invariable or worse. ITCZ concentration (mean \pm standard deviation) was in the order of improved group (1254 \pm 924 ng/mL) > invariable/worsening group (260 \pm 296 ng/mL). OH-ITCZ concentration was in the order of the improvement group (1830 \pm 1031 ng/mL) > invariable/worsening group (530 \pm 592 ng/mL). The cutoff values of ITCZ concentration and the sum of concentrations of ITCZ and OH-ITCZ were calculated as 517 ng/mL and 1025 ng/mL, respectively. In the improvement group, ITCZ concentration in 13 cases (86.7%) were distributed than 500 ng/mL, and the sum of concentrations of ITCZ and OH-ITCZ in 14 cases (93.3%) were distributed than 1000 ng/mL.

Conclusions

It was considered that the plasma concentration range of ITCZ was 500 ng/mL or more, and the sum of concentrations of ITCZ and OH-ITCZ was 1000 ng/mL or more in the treatment of pulmonary aspergillosis. There was no difference in usefulness as an indicator of efficacy between them, and the effectiveness was thought to be sufficiently reflected even by ITCZ trough concentration monitoring alone.