

# MANAGEMENT OF VORICONAZOLE-INDUCED LIVER TOXICITY IN A PAEDIATRIC PATIENT

Martínez Suárez A, Merino Bohórquez V, Moñino Domínguez L, Aguado Paredes A, Castillejo García R, Calleja Hernández MA.
Clinical Pharmacy, Hospital Universitario Virgen Macarena, Sevilla, Spain

Voriconazole has variable pharmacokinetics linked to age, cytochrome CYP2C19, hepatic dysfunction and drug interactions. Children usually require higher doses to have voriconazole plasma concentrations (Cpvor) within the therapeutic range (TR) and due to variability, close Cpvor monitoring is recommended.

## **Objective:**

To describe pharmacokinetic/pharmacokinetic (PK/PD) management, efficacy and safety of voriconazole-induced liver toxicity in a pediatric patient.

## Design:

PK/PD management was performed by clinical pharmacists and the goal was to have Cpvor within the TR (1.5-5.5 mg/L). Cpvor were measured by a validated high-performance liquid chromatography method.

**Efficacy** Analytical, clinical and radiographic improvement.

Safety

Absence of adverse reactions.

#### Results:

An 8-year-old pediatric patient undergoing active chemotherapy for acute myeloid leukemia.

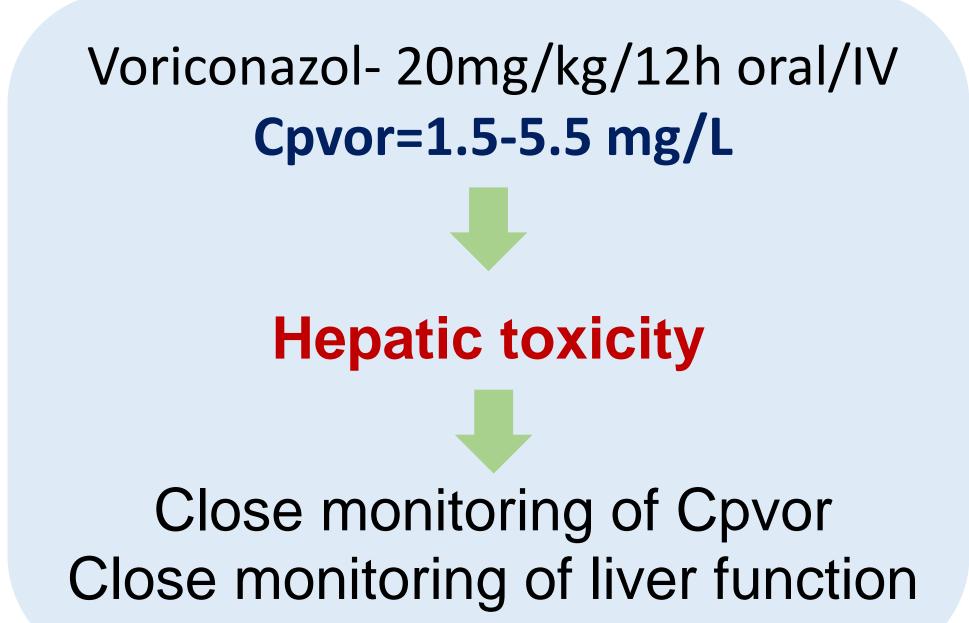
2nd consolidation

probable invasive aspergillosis

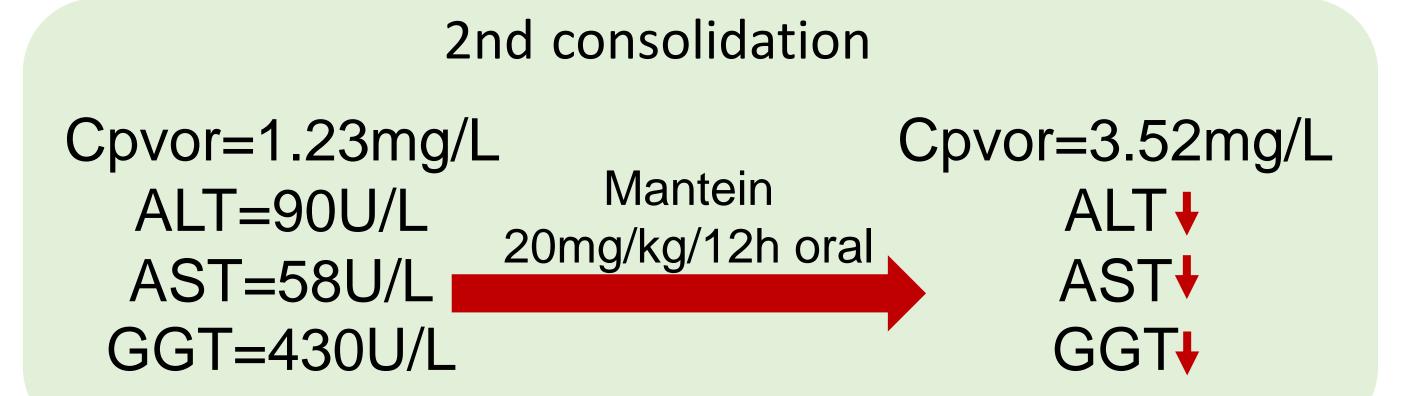
3rd consolidation

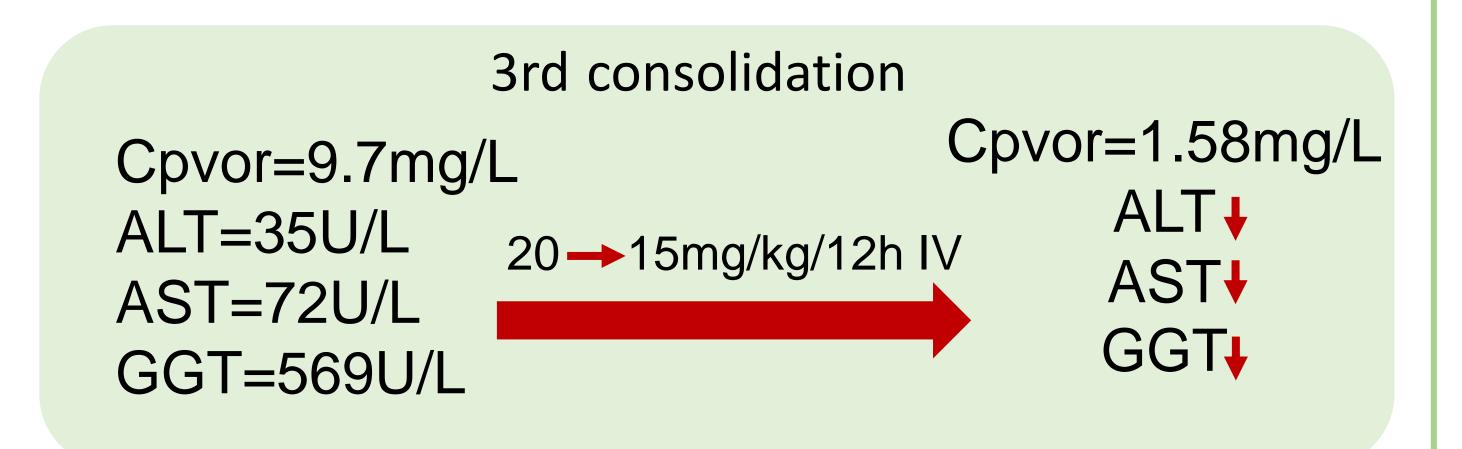
proven invasive aspergillosis











The patient was treated with oral and IV voriconazole, oral bioavailability was estimated to vary between 70-100%.

### Conclusion:

- The patient required higher doses than those recommended in the data sheet to achieve TR.
- Voriconazole-induced liver toxicity is not dose-dependent.
- Treatment with voriconazole was effective in the treatment of probable and proven aspergillosis; she presented clinical, analytical and radiographic improvement.
- The patient had voriconazole-induced liver toxicity, resolved with PK/PD management.