

# VORICONAZOLE THERAPEUTIC DRUG MONITORING: RELATIONSHIP WITH LIVER TOXICITY

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## BACKGROUND AND IMPORTANCE

Serious fungal infections are a subject of concern in hospital medicine. Voriconazole is one of the most used antifungal agents to treat these situations. Voriconazole Therapeutic Drug Monitoring (TDM) may help to avoid treatment failures or adverse events.

## AIM AND OBJECTIVES

To to evaluate the impact of voriconazole TDM in dose or drug changes and seek a relationship between voriconazole plasma levels and liver toxicity.

## MATERIAL AND METHODS

Plasma levels (Cp) were measured once a steady state was achieved and though drug concentration were registered. Voriconazole concentrations were analyzed by a validated RP-HPLC-UV method.

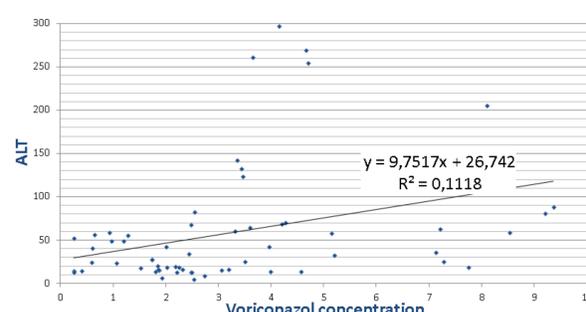
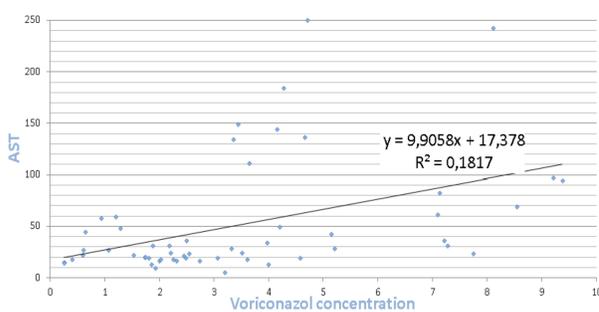
Liver enzymes and cholestasis markers concentrations (aspartate aminotransferase (AST), alanine aminotransferase (ALT), gamma glutamyl transferase (GGT), alkaline phosphatase (ALP) and total bilirubin (TB)), dose, diagnosis, age and sex were registered.

Microsoft Excel was used for the statistics calculation.

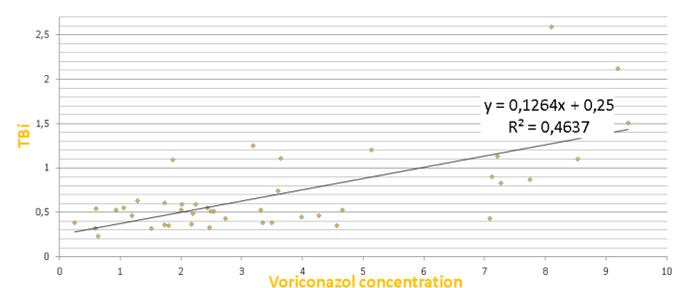
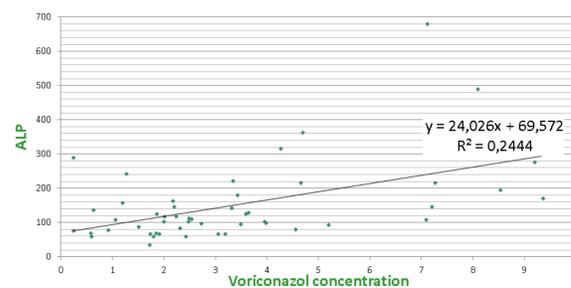
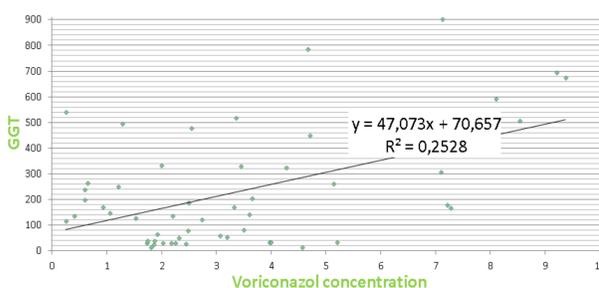
## RESULTS

N determinations	Patients
68	38
Age	Gender
64.84 ±11.29 years	73,75% male

5 patients had dose changed; 1 patient changed treatment  
60% of dose changes were in patients taking 200 mg/12 hours



The relative risk of presenting ALT and AST levels above the normal range is 3.12 and 2.31 respectively, in patients with Voriconazole Cmin > 3mg/dl compared to Cmin < 3mg/dl (p < 0.05 Chi squared)



A positive correlation exists between plasma levels of voriconazole and liver enzymes as well as with cholestasis markers

## CONCLUSION AND RELEVANCE

- Voriconazole TDM is a tool that can help to avoid treatment failure and adverse events. Its relationship with liver toxicity, which shows our data, TDM would help to prevent these side effects

Disclosure: None of the authors of this study have to disclose any possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this study.

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