INTERACTION BETWEEN VORICONAZOLE AND RIFAMPICIN: A CASE REPORT

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VORICONAZOLE

CONTRA-INDICATION

RIFAMPICIN

CYP450 substrate

loss of voriconazole effectiveness

CYP450 inducer

Case Description

• 54-year old male (98 kg)
• Invasive pulmonary aspergillosis after heart transplantation
• Caspofungin started at ICU (during 2 weeks)
• Transfer to cardiac care unit
• Switch caspofungin to oral voriconazole (400mg twice daily)
• After 3 days: undetectable serum concentration of voriconazole

⇒ Dosage ↑: 600 mg twice daily

Discussion

Possible causes for low voriconazole serum concentration?
✓ Dosage? 4 mg/kg bodyweight twice daily ⇒ OK!
✓ Food interaction? Tube feeding stopped 2h before and 1h after administration ⇒ OK!
✓ Drug interaction? No significant interactions with current co-medication ⇒ OK?

! MEDICATION HISTORY ! ⇒ NO!!

RIFAMPICIN at ICU, stopped at transfer cardiac care unit
⇒ induction of CYP enzymes, ↑ metabolism of voriconazole
⇒ ↑ activity until 3 weeks after stop rifampicin
⇒ treating physician unaware!
⇒ Advice pharmacist: 400mg twice daily + TDM

Conclusion

This case-report demonstrates a drug-drug interaction between voriconazole and rifampicin, after discontinuation of rifampicin. Review of the medication history is therefore an unmistakable part in the detection of drug interactions. Furthermore it emphasizes the need for good communication between treating physicians and a multidisciplinary team, in which the pharmacist can play a significant role.