Does Interaction between Omeprazole and Cyclosporin Exist?

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Dear Sir,

Omeprazole (OMP) is a new drug that inhibits gastric secretion by altering the activity of H⁺ /K⁺ -ATPase. It has been shown to be useful for reflux esophagitis, Zollinger-Ellison syndrome and peptic ulcers, both duodenal and gastric. It heals peptic ulcers more rapidly than conventional doses of H₂-receptor antagonist. OMP is extensively metabolized by the hepatic cytochrome P-450 system [1]. Cyclosporin (CyA) is also metabolized in the liver by the same cytochrome, and thus, a pharmacological interaction with OMP may be expected [2]. Peptic ulcer is an important gut complication in kidney transplantation patients, and OMP is an effective new drug that will frequently be used in association with CyA.

A 45-year-old man was admitted with upper gastrointestinal bleeding. He was treated with oral CyA (8 mg/kg/day), predni-sone (0.15 mg/kg/day) and azathioprine (1.5 mg/kg/day) after kidney transplantation performed 18 months before. A duodenal ulcer had been diagnosed while he was in dialysis. He had been operated for hyperparathyroid-ism 4 months before admission. A gastro-duodenal endoscopy was performed showing a duodenal ulcer without active bleeding. OMP was begun at 20 mg daily. After 4 weeks of treatment a new endoscopy showed that the ulcer was healed.

Due to a possible interaction between OMP and CyA and the few clinical descriptions of the two drugs used together, a close CyA plasmatic level follow-up was performed in this patient. Results are shown in table 1. Schouler et al. [3], in a similar case, showed an important clinical interaction between both drugs, suggesting that OMP can inhibit CyA metabolism. However, we have not found significant changes in CyA concentration.

Because of the efficacy of OMP in healing peptic ulcer, we think that this association can be used in clinical practice but, in view of the few descriptions of both drugs used together, when starting concomitant OMP-CyA administration, frequent measurement of cyclosporinemia levels is recommended.

References

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DisSci 1991;36:1384-1389. Schouler L, Dumas F, Couzigou P: Omepra-zole-cyclosporine interaction. Am J Gastroente-rol 1991;86:1097.

Table 1. CyA
concentration (ng/ml) by monoclonal RIA1

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