***Helicobacter pylori* Infection in Dialyzed Patients: Bismuth Therapy and Pharmacokinetics**

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Dear Sir,

With great interest we read the letter by Conz et al. [1] and the recent response to that letter by Jobson et al. [2] indicating that the pharmacokinetics of bismuth (Bi) salts in dialyzed patients have not been studied.

We would like to draw your attention to a clinical study where we investigated the absorption and urinary excretion of colloidal Bi subcitrate (CBS) in patients with normal and impaired (creatinine clearance 10-60 ml/min) renal function including 4 patients undergoing hemodialysis [3]. The regular dialysis sessions lasted 5 h (Fresenius F 50 dialyzer with polysulfone membrane of 0.9 m² surface area was used) and patients were treated for 4 weeks with a reduced dose of 120 mg CBS (Telen®) twice daily. Following the first dose, the morning dose after 2 and 4 weeks plasma levels (0-2 h postdosing) and urinary excretion (24 h) of Bi were measured by atomic absorption spectrophotometry with hydride generation. In the dialyzed patients, averaged (± SD) peak plasma levels of Bi ranged between 40 ± 26 µg/l (first dose) or 49 ± 34 µg/l (week 4) and were achieved within 30-60 min. The area under the plasma level time curves indicated no accumulation during the treatment period of 4 weeks. Trough steady state levels ranged around 20 µg/l, and basal (pre-study) plasma concentrations were reached

2 weeks after stopping CBS therapy. Minor amounts (0.27% of dose) of Bi were absorbed and 0.2% of the dose could be recovered in the dialysate.

Since plasma concentrations in the 4 dialyzed patients receiving only half the standard dose (240 mg CBS bid) did not exceed those of other individuals with normal and moderately impaired kidney function, dosage decrements of maximally 50% seem to be sufficient to compensate for the impaired elimination of Bi in patients with severe renal insufficiency. Whether such reduced dosage will affect the therapeutic efficacy of CBS remains to be clarified.

References

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