

Correction of metabolic acidosis after conversion from sevelamer hydrochloride to lanthanum carbonate

Sir,

We recently introduced lanthanum carbonate as an alternative phosphate binder to sevelamer hydrochloride in patients with elevated serum calcium. Lanthanum carbonate has a higher affinity for phosphate than sevelamer HCl, so fewer lanthanum carbonate tablets are required to achieve the same phosphate control. To reduce the pill burden in patients on high doses of sevelamer HCl, a policy of converting patients who were prescribed 8–12 sevelamer per day, and patients currently on 6 sevelamer per day but in need of a dose increase, to 3 × 750 mg lanthanum carbonate per day was established. Conversions were made at the discretion of the doctor, so that well-controlled patients were less likely to switch.

In October 2007, 60 haemodialysis patients converted according to the above criteria. Of these, 13 patients who disliked or were intolerant of lanthanum carbonate reverted to sevelamer HCl within 3 months. Forty-seven patients (68% male, median age 47 years, range 21–79) continued to take lanthanum carbonate.

Several studies have suggested that sevelamer HCl contributes to metabolic acidosis [1,2], while lanthanum carbonate would be expected to have an antacid effect. A comparison of the median of three routine (monthly) pre-dialysis serum bicarbonate and phosphate measurements immediately before and after conversion for each patient showed an increase in serum bicarbonate from a mean of 20.3 ± 2.3 to 22.2 ± 2.4 mmol/l ($P < 0.0001$, paired *t*-test), see Figure 1. There was no wash-out period for these patients, so it is not clear whether the change in bicarbonate was due to the discontinuation of sevelamer or the initiation of lanthanum carbonate. It is noteworthy that the increase in bicarbonate was significantly lower in the 15 patients that were prescribed 6 sevelamer per day prior to the conversion (0.7 ± 1.9 versus 2.3 ± 2.6 mmol/l, $P = 0.04$, unpaired *t*-test). This is in keeping with previous data suggesting that the degree of acidosis is related to the dose of sevelamer [2].

Phosphate levels were unchanged (mean before and after conversion 2.02 ± 0.53 and 1.97 ± 0.50 mmol/l, respectively). At the time of this analysis, the dose of lanthanum had not been titrated. Phosphate levels increased by an average of 0.25 mmol/l in the six patients who were on the maximum dose of sevelamer, suggesting that patients taking more than 9 sevelamer per day should convert to the maximum recommended dose of lanthanum carbonate (3 × 1 g/day).

Our data are purely observational and no attempt was made to control or monitor adherence to the prescribed medications. Whilst a more rigorously controlled study might have shown a larger effect, the observed increase in bicarbonate is clinically significant and may be beneficial as this patient group has a tendency to develop metabolic acidosis.

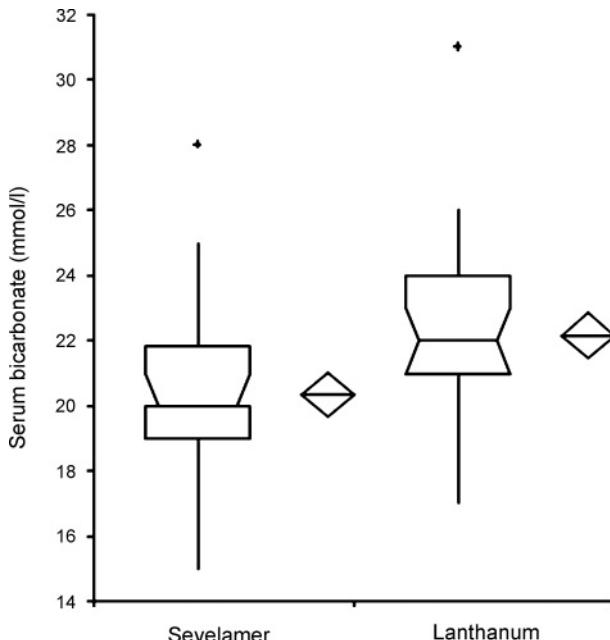


Fig. 1. Serum bicarbonate levels for 47 patients before and after conversion from sevelamer hydrochloride to lanthanum carbonate. The notches in the box plot indicate the 95% confidence interval in the median level; the diamonds indicate the 95% CI for the mean.

Conflict of interest statement. None declared.

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Impact of cetuximab conventional dosing on cetuximab-induced magnesium concentration under haemodialysis in head and neck cancer

Sir,

Cetuximab-induced hypomagnesaemia is a concern in 50% of patients with normal renal function, including 15% of chronic kidney disease (CKD) stages 3–4 [1]. Cetuximab, a 150 kDa anti-EGFR (epidermal growth factor) monoclonal antibody (MAb), has been approved for the treatment of locally advanced cancer of the head and neck (LACHN) [2]