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Interactions between calcium metabolism and anti-reflux medication after sleeve gastrectomy**Christoph Sperker, Abraham A, Brix J, Saalabian A, Landsiedl A, Schermann M and Grünberger**
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Introduction: Malabsorption and micronutrient deficiencies are known problems after bariatric surgery. Therefore, supplementation and regular controls are inevitable. Calcium (Ca^{2+}) levels, which may be disrupted after malabsorptive bariatric procedures are known to depend on gastric pH levels.

Objectives: To determine the effect of proton pump inhibitors (PPI) on Ca^{2+} , parathyroid gland hormone (PTH) and vitamin D levels after sleeve gastrectomy (SG).

Methods: All patients who underwent SG between 2008 and 2013 were enrolled in our follow-up program. The patients were examined preoperatively and then four times during the first year. Ca^{2+} metabolism and weight parameters were monitored. All the patients received 3000 mg of Ca^{2+} carbonate (equivalent to 1200 mg of Ca^{2+}), 800 IE of vitamin D, as well as one multivitamin tablet daily. All the parameters were then analyzed for associations with PPI intake.

Results: Data of 385 out of 400 (96.2%) patients were analyzed after 1 year of follow-up (3.8% lost to follow-up). Thirty nine (10.1%) patients took PPI for at least three months during the first year. The Ca^{2+} levels were significantly lower ($p < 0.0001$) in the PPI group in comparison to the non-PPI group, although neither of the groups showed hypocalcaemia. The PTH levels showed an opposite behavior ($p < 0.0001$).

Conclusions: Our data show that higher gastric pH levels caused by PPI intake negatively influence Ca^{2+} absorption. Therefore, Ca^{2+} and PTH levels should be monitored, especially in patients receiving PPI therapy after SG.

Biography

Christoph Sperker has specialized in Laproscopic Surgery and Bariatric Surgery. He is a Visiting Professor to the Medical University of Vienna and is passionate in teaching and passing on his skills. His main focus in the field of bariatric surgery is nutrition and deficiencies after bariatric surgery depending on PPI medication.

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