Letters to the editors

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Dumping syndrome after combined pyloroplasty and fundoplication

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Sir: With great interest we read the article written by K. Pittschieler entitled "Dumping syndrome after combined pyloroplasty and fundoplication" [3]. However, we do not agree with his conclusion that pyloromyotomy is the major factor in the genesis of dumping.

Dumping syndrome is reported in a small group of children, mostly after Nissen fundoplication; but accidental damage to the vagal nerve may also be involved.

Pittschieler described a child with dumping syndrome after combined Nissen fundoplication and Ramstedt pyloromyotomy. Fundoplication is known to accelerate gastric emptying, but the influence of pyloromyotomy is not clear yet. Tam et al. [4] studied a small group of children after pyloromyotomy and found increased gastric emytying as compared to the control group. A child has been described with transient dumping symptoms over a short period follwing Ramstedt pyloromyotomy [2]. To the best of our knowledge no other cases have been published. Also evidence was given to include breath H_2 tests during the glucose tolerance test. Dumping syndrome was defined as a decline in serum glucose level >6.0 mmol/l plus breath H_2 increase >10 ppm, following ingestion of 2 g/kg body weight glucose.

We investigated 13 patients 11–14 years after operation by means of clinical history, glucose tolerance test, and breath H_2 test [1]. In none of our children did the glucose tolerance test give typical symptoms or laboratory tests. One child had a H_2 rise of 19 ppm but normal blood glucose levels. The glucose rise (basal − highest), glucose decrease (highest − subsequent lowest) and time to reach the highest glucose level were no different from the control group. We conclude that many years after pyloromyotomy, dumping syndrome was not present and there was no evidence of increased gastric emptying. In our opinion dumping syndrome after combined fundoplication and pyloromyotomy is more likely to be the result of fundoplication than of pyloromyotomy.

References

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Author's reply

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Sir: Dr. van Kempen et al. present their experience on 13 patients with pyloromyotomy evaluating the presence of dumping by using selected tests (glucose tolerance test, H_2 breath test) many years (11–14) after surgery. The clinical features of these patients are very different to the history and data of the infant recently published in this journal. The innovative diagnostic technique, described in the paper, can be considered in my opinion, a major breakthrough in evaluating massive fluid shifts from the stomach into the duodenum and vice versa not inhibited by an incompetent pylorus. In the discussion I point out that the symptoms which lasted for many months, were not just the result of an inadequate handling of the gastric content after pyloric surgery. The concomitant and synergistic negative effects of the reduction in gastric volume, together with a highly altered motility in the stomach following fundoplication, are similarly involved. In conclusion, gastroduodenal scintigraphy measuring gastric retention is a major tool to measure abnormal regional motility patterns and to show that these events are not inhibited by a modulating pyloric activity after pyloromyotomy.