Therapeutic value of octreotide for patients with severe dumping syndrome: a review of randomised controlled trials

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Authors' objectives
To determine the usefulness of octreotide as an effective treatment for severe dumping syndrome.

Searching
MEDLINE, EMBASE and PubMed were searched to the end of March 2000. The keywords included 'randomis(z)ed trial', 'dumping syndrome' and 'octreotide'. In addition, the authors examined the citations of primary and review articles. Only published studies were eligible for inclusion.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials with a crossover design were included.

Specific interventions included in the review
Studies of octreotide were eligible for inclusion. The interventions included in the review were octreotide (50 to 100 microg), taken 15 to 60 minutes before either a meal or a provocative dose of oral glucose (75 to 100 g).

Participants included in the review
Patients with severe dumping syndrome were included.

Outcomes assessed in the review
Studies that assessed the symptoms of dumping syndrome were eligible for inclusion. The outcomes assessed were: the alleviation of diarrhoea, abdominal pain, dizziness and palpitation; the minimisation of changes in orthostatic pulses and blood-pressure; the minimisation of the influence on packed cell volume and plasma osmolarity; and the prevention of late hypoglycaemia.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the reviewers performed the selection.

Assessment of study quality
The authors do not state that they assessed validity.

Data extraction
The authors do not report how the data were extracted from the primary studies.

Data were presented on: study design, method, the impact of octreotide (p-values being given for the symptoms described), and the side-effects.

Methods of synthesis
How were the studies combined?
A narrative synthesis was presented.

How were differences between studies investigated?
Differences between the trials were discussed narratively.
Results of the review
Seven studies (N=63) were included.

Compared with the control cases, octreotide pre-treatment resulted in a significant improvement in symptoms in nearly all of the patients. In particular, four trials showed a decreased gain in pulse rates and stabilised blood-pressure. Six trials described the prevention of hypoglycaemia or the rise of plasma insulin concentrations. Two trials reported a reduction in diarrhoea, whereas three described the development or worsening of this symptom.

Authors’ conclusions
The authors concluded that the administration of octreotide, either 30 minutes before or immediately after a meal, offers a practical an effective approach to the treatment of late and early dumping syndrome.

CRD commentary
This was an extremely brief paper which did not detail any of the methodological processes involved in the review. The literature search was limited to two databases and only published studies were included. It is therefore possible that important studies may have been missed and the results may be subject to publication bias. No language restrictions were reported, although all of the included studies were published in English. Important details of the included studies, which may be of relevance when interpreting the data, were omitted. The narrative synthesis reported was appropriate; however, no indication of the size of the treatment effect was reported, which made it difficult to interpret the results. Study quality was not formally assessed.

The authors’ conclusions appear to follow from the results presented, but should be interpreted with caution given the limited nature of the material presented in the paper.

Implications of the review for practice and research
Practice: The authors state that the administration of octreotide, either 30 minutes before or immediately after a meal, offers a practical and effective approach to the treatment of early and late dumping syndromes for patients with severe or refractory dumping syndrome.

Research: The authors did not state any implications for further research.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.