

Somatostatin analogues for major symptom control in inoperable malignant bowel obstruction - A review

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Abstract

Background:

Malignant bowel obstruction (MBO) is a challenging complication in patients with advanced abdominal or pelvic malignancy. Major symptoms include abdominal pain (continuous and/or colicky), nausea, and vomiting. Medical management in inoperable MBO commonly includes the use of somatostatin analogues due to their ability to reduce gastrointestinal secretions very rapidly, but there is yet no evidence based consensus on their applicability.

Aim:

To evaluate the evidence on the efficacy of somatostatin analogues for major symptom control in adult patients with inoperable MBO.

Material and methods:

A systematic search was performed in PubMed and the Cochrane Library database (1979-2018). Hand search was performed of reference lists of relevant articles, key journals, previous review articles and systematic reviews. The inclusion criteria was randomized controlled, or non-randomized controlled studies, examining effects on major symptom control with somatostatin analogue therapy in adults (19+) with inoperable MBO. Major symptoms included abdominal pain, nausea, and vomiting or nasogastric tube secretion. The Cochrane Risk of Bias Tool was used for quality assessment.

Results:

The search identified a total of 212 abstracts, and after screening of these, 43 full text articles were analyzed for eligibility. Seven randomized trials matched the inclusion criteria, including a total of 430 patients. Three studies compared somatostatin analogues (2 octreotide and 1 lanreotide) with placebo. The only study with low risk of bias showed no significance in primary endpoint, days free of vomiting, between octreotide and placebo. Two other placebo controlled trials met methodological problems, making clear conclusions difficult to draw.

Four studies compared octreotide with hyoscine butylbromide, and they showed significant effect of octreotide in primary endpoint, reduction of vomiting or nasogastric tube secretion, but all had an unclear or high risk of bias. Two of these non-placebo controlled trials showed significant reduction of continuous abdominal pain as secondary endpoint. No study showed effect on colicky pain. Because of large variations in study designs, follow up time, outcome measures and endpoints, no meta-analysis could be performed.

Short discussion and conclusion:

The role of somatostatin analogues in the medical management of MBO is yet poorly investigated. The randomized controlled studies are few, short and mostly very small. There is also a lack of consensus on which outcomes should be considered as relevant. The review showed some evidence supporting the use of octreotide for symptom control, but the only placebo controlled study with low risk of bias showed no benefit.