Corticosteroids for the resolution of malignant bowel obstruction in advanced gynaecological and gastrointestinal cancer

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Authors' objectives
Background: This is an update of the review published in Issue 3, 1999. Gastrointestinal and ovarian cancers are common cancers. The incidence of associated malignant bowel obstruction in patients with advanced cancers of these types is not known, and the best management of these patients is controversial. Inappropriate management may result in uncontrolled (faeculant) vomiting, pain and distress. Management of the symptoms can include palliative surgery, nasogastric tube suction together with intravenous fluids, or pharmacological means, such as corticosteroids. There is uncertainty regarding both the efficacy and possible harmful effects of corticosteroids, and also the most effective type, dose/dosing regime, route and period of administration. Objectives: To locate, appraise and summarise evidence from scientific studies on intestinal obstruction due to advanced gynaecological and gastrointestinal cancer, in order to assess efficacy of corticosteroids. Search methods: A comprehensive list of all studies was provided by an extensive search of the electronic databases, relevant journals, reference lists, the grey literature, contact with investigators and other search strategies outlined in the methods. Date of last search conducted in February 2006. Selection criteria: As the review concentrates on the 'best evidence' available of the role of corticosteroids in malignant bowel obstruction due to advanced gynaecological and gastrointestinal cancer the inclusion criteria were kept fairly broad so as to include all studies relevant to the question. Data collection and analysis: Data extraction forms were used to collect data from the studies included in the review. The data was checked by a secondary searcher to reduce error. A qualitative analysis was performed of the dichotomous data of resolution of obstruction and death at one month, obtained from the randomised controlled trials of corticosteroids versus placebo. Both fixed and random effect models were used. Number-needed-to-treat-to-benefit (NNT) was derived from the odds ratio. Kaplan-Meier survival curves from individual patient data were also analysed. Studies of lower methodological quality were assessed in a qualitative manner. Main results: No new included or excluded trials were found for this update beyond the three unpublished, randomised, placebo, double blind controlled trials and seven published (prospective and retrospective) trials which were previously considered eligible. Using only the randomised trials (89 patients), there is a trend, which is not statistically significant, for the resolution of bowel obstruction using corticosteroids. There is no statistically significant difference in mortality at one month, nor in the Kaplan-Meier curves, which describe the survival of patients on corticosteroids or placebo. Number needed to treat is six (three, infinity) i.e. six patients need to be treated with corticosteroids to resolve one episode of bowel obstruction. The results are robust to fixed and random effects models and to 'best' and 'worst case' scenarios on the missing data from patients. The morbidity associated with corticosteroids appears to be very low, though the quality of the data limits this conclusion. No other outcomes were available from the published data or from the authors. Authors' conclusions: There is a trend for evidence that corticosteroids of dose range six to 16 mg dexamethasone given intravenously may bring about the resolution of bowel obstruction. Equally, the incidence of side effects in all the included studies is extremely low. Corticosteroids do not seem to affect the length of survival of these patients. Since the last version of this review, no new studies have been conducted. No new studies have been identified for this update and the conclusions are not altered.

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