Introduction

Date of Most Recent Substantive Amendment: 2005 02 21

Background

Megestrol acetate (MA) is currently used to improve appetite and to increase weight in cancer-associated anorexia. In 1993 MA was approved by the USA's Federal Drug Administration for the treatment of anorexia, cachexia, or unexplained weight loss in patients with AIDS. The mechanism by which MA increases appetite is unknown, and its effectiveness for anorexia and cachexia in neoplastic and AIDS patients is under investigation.

Objectives

To evaluate the efficacy, effectiveness and safety of MA in palliating anorexia–cachexia syndrome in patients with cancer, AIDS and other underlying pathologies.

Search strategy

Studies were sought thorough an extensive search of the electronic databases, journals, reference lists, contact with investigators and other search strategies outlined in the methods. The most recent search was carried out on October 2002.

Selection criteria

Studies were included in the review if they assessed megestrol acetate compared to placebo or other drug treatments in randomized controlled trials of patients with a clinical diagnosis of anorexia–cachexia related to cancer, AIDS or another underlying pathology.

Data collection and analysis

Data extraction was conducted by two independent authors, and methodological quality evaluated. Quantitative analyses were performed using appetite and quality of life as a dichotomous variable, and weight gain was analysed as continuous and dichotomous variables. Studies with more than 50% of patients lost to follow–up were excluded from the analysis.
Thirty trials met the inclusion criteria (4123 patients). Twenty-one trials compared MA at different doses with placebo; four compared different doses of MA versus other drugs; two compared MA with other drugs and placebo; and three compared different doses of MA. For all patient conditions, meta-analysis showed a benefit of MA compared with placebo, particularly with regard to appetite improvement and weight gain in cancer patients. Analysing quality of life, clinical and statistical heterogeneity was found and discussed. There was insufficient information to define the optimal dose of MA.

**Authors’ conclusions**

This review demonstrates that MA improves appetite and weight gain in patients with cancer. No overall conclusion about quality of life (QOL) could be drawn due to heterogeneity. The small number of patients, methodological shortcomings and poor reporting have not allowed us to recommend megestrol acetate in AIDS patients or with other underlying pathologies.

**Strengths:**

1. Well defined, useful clinical question
2. Extensive search strategy
3. Good inclusion and exclusion criteria
4. Large study population (4123 patients)
5. Analysis with intention to treat
6. Results applicable to our patients
7. Results consistent with results of two other systematic reviews

**Weaknesses:**

1. 64% were assessed as low to moderate quality trials
2. Unable to assess whether the increased appetite and weight gain correspond to an improvement in quality of life
3. Did not study other useful variables such as whether increased appetite and weight gain have any benefits with regards to prolonging life
4. Potential conflict of interest for authors of the review