

Corticosteroids for the management of cancer-related pain in adults.

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Reference: Authors: Haywood A, Good P, Khan S, Leupp A, Jenkins-Marsh S, Rickett K, Hardy JR, *Cochrane Database Syst Rev* 2015; 4:CD010756.

Background:

- Many patients with cancer-related pain will be treated with corticosteroids.
- Corticosteroids may be beneficial for a variety of pain types including:
 - Neuropathic pain
 - Bone pain
 - Pain from capsular expansion, duct obstruction, bowel obstruction, lymphedema, intracranial lesions causing increased intracranial pressure
- Palliative treatment of advanced disease for pain, nausea, anorexia, mood elevation, fatigue

The Problem:

- Despite widespread clinical use, evidence for treatment of cancer-related pain from randomized trials are lacking
- Corticosteroid side effects: proximal myopathy, oral candidiasis, hyperglycemia, GI irritation, immune suppression, osteoporosis and psychological disturbances (insomnia, delirium, depression, anxiety, psychosis)

Objective:

- To determine the efficacy of corticosteroids in treating cancer-related pain.

Population:

- Patients > 18 years of age with cancer-related pain.

Study Selection:

- Any randomized- or prospective-controlled trial.

Intervention:

- Treatment with corticosteroids (variety of dosing/routes).

Comparison:

- Corticosteroids compared to:
 - Placebo
 - Usual treatment (e.g. opioid analgesia)
 - Non-pharmacologic treatment for pain
 - Supportive care

Outcomes:

- Primary:
 - Patient-reported pain intensity and pain relief using validated scales (visual analogue scale, verbal rating scale, numerical rating scale)
 - 9/15 studies designed to detect pain as primary outcome
 - Note: remaining 6/15 studies were designed to assess other primary outcomes including chronic nausea, cancer-related fatigue, quality of life
- Secondary:
 - Adverse events
 - Quality of life
 - Patient satisfaction

Results:

- 15 studies included in qualitative assessment
- 6 studies included in meta-analysis (included only those reporting pain scores mean \pm SD at 7 days)
- Total 315 patients
- Intervention arm favoured in all trials (mean difference -0.84 95% CI -1.38 to -0.30)

Conclusions:

- Data seem to suggest benefit for steroids in treatment of cancer-related pain, at least on a *short-term basis*.
- Unclear if reduction in pain score by 0.8 (with wide confidence interval) is clinically significant.
- Insufficient data to determine most effective corticosteroid, dose, route, or use in specific primary diseases.
- Clinicians should be cautious administration of corticosteroids, monitor for benefit / side effects.

- Further studies needed to determine appropriate population, dose, route, and duration of corticosteroid therapy.

Strengths:

- Careful systematic review of the available literature
- Rigorous meta-analysis of a very heterogeneous set of data
- Thorough assessment of bias

Weaknesses:

- Data too limited to allow for subgroup analyses e.g. cancer type, dose and duration of steroid
- No attempt made to identify pain syndromes
- Heterogeneous population (disease primary, etiology of pain)
- Level of evidence down-graded due to selection bias (lack of randomization and allocation concealment in several studies) and low numbers of participants
- Meta-analysis of secondary outcomes not possible due to lack of standardized method for reporting quality of life, patient satisfaction, etc.

