Corticosteroids have been used extensively to treat pain and associated symptoms in various types of cancer.([i] [ii] [iii])

They can provide a variety of beneficial effects including: mood elevation, anti-inflammatory activity, antiemetic, appetite stimulant, reduction of cerebral or spinal oedema ([iv])(reducing spinal compressive problems and acutely raised intracranial pressure).

Bruera et al ([v])demonstrated the analgesic effects of corticosteroids and various authors ([vi] [vii]
[viii]
) have described their effect on improving quality of life.

There are 2 different drugs, which may be used: dexamethasone and prednisolone. Dexamethasone is given at 16-24mg/day or prednisolone 60-100mg/day for treatment of lumbosacral plexopathy (high dose to help reduce spinal cord oedema).

However, patients may respond favourably to a small dose such as dexamethasone 1-2 mg daily for other pain problems.

Alternatively, short-term high dose therapy such as 100mg dexamethasone reducing to 96 mg divided into 4 doses a day, tapered down within 2-3 weeks, can be helpful in very severe intractable neuropathic pain.

High doses should only be given intermittently and can be tapered down over weeks (rapid withdrawal may precipitate pain), with a concurrent administration of an alternative analgesic. High doses are more likely to lead to adverse effects. ([ix])

Side effects may be serious and they increase in severity with prolonged use. ([x])

Adverse effects include: muscle wasting, hyperglycaemia (raised blood sugar), weight gain, oedema (fluid retention), indigestion (increased risk of peptic/duodenal ulcer), hypertension (raised blood pressure), adrenal suppression, increased susceptibility to infections, bruising, avascular necrosis of femoral head (damage to thigh bone at hip joint).

Also, high doses may precipitate mental disturbances: euphoria is common and not usually problematic (may indeed be therapeutic) but more serious problems such as paranoid psychosis, depression and risk of suicide may occur.

Epidural steroid injections and other local steroid injections (facet joint, trigger point) may be given but invasive spinal procedures are considered by the ASG to be potentially damaging: the benefit: risk ratio is poor.

The NNT is 7.3 for greater than 75% pain relief in the short-term (1-60 days) and 13 for greater than 50% pain relief in the long-term (12weeks to one year).

Looking at NNTs, in comparison with other forms of analgesia, epidural steroids are much less effective.

The preservatives in most preparations of steroid injectate may be neurotoxic and there is a risk of causing arachnoiditis, an incurable spinal condition, which causes severe, intractable nerve pain and a variety of other symptoms.

This issue is addressed more fully in other articles.

---

[i] Ettinger AB Portenoy RK *J Pain Symptom Management* 1988;3:99-103 The use of

corticosteroids in the treatment of symptoms associated with cancer.

[ii] Moertel C G et al *Cancer* 1974;33:1607-1609 Corticosteroid therapy of preterminal gastrointestinal cancer.

[iii] Schell HW *Geriatrics* 1972;27:131-141 Adrenal corticosteroid therapy in far advanced cancer.

[iv] Greenberg HS, Kim J,Posner JB *Ann Neurol* 1980;8:361-366 Epidural spinal cord compression from metastatic tumor: results with a new treatment protocol.

[v] Bruera E, Roca E, Cedaro L, Carrara S , Chacon R. *Cancer Treatment Report* 1985;69:751-754. Action of oral methylprednisolone in terminal cancer patients: a prospective randomized double-blind study.

[vi] Della Cuna G R , et al. *European Journal of Clinical Oncology*, 1989;29:1817-1821. Effect of methylprednisolone sodium succinate on quality of life in preterminal cancer patients. A placebo-control multicenter study.

[vii] Popiela T, Lucchi R , Giongo F. *European Journal of Cancer and Clinical Oncology* 1989;25(12):1823-1829 Methylprednisolone as palliative therapy for female terminal cancer patients. The Methylprednisolone Female Preterminal Cancer Study Group.

[viii] Tannock I, Gospodarowicz M, Meakin W, Panzarella T, Stewart L, Rider W. *Journal of Clinical Oncology*
1989;7:590-597. Treatment of metastatic prostatic cancer with low-dose prednisone: evaluation of pain and quality of life as pragmatic indices of response.

[ix] Walsh T D. *Journal of Pain and Symptom Management*. 1990; 5(6):363367. Prevention of opioid side effects.

[x] Haynes R C. 1990 Adrenocorticotrophic hormone: adrenocortical steroids and their synthetic analogs: inhibitor's of the synthesis and actions of adrenocortical hormones. In: Gilman AG, Rall T W, Nies A S and Taylor P, ed. The Pharmacological Basis of Therapeutics,. 8th ed. Permagon Press. New York p 1431 1462.