

- 3 Chan B, Gaudry P, Grattan-Smith TM. The use of the Glasgow coma scale in poisoning. *J Emerg Med* 1993;11:579-82.
- 4 Davies E, Kidd D, Stone SP, *et al*. Pharyngeal sensation and gag reflex in healthy subjects. *Lancet* 1995;345:487-8.
- 5 Leder SB. Gag reflex and dysphagia. *Head Neck* 1996;18:13841.

Bell's palsy and prednisolone

Report by Joel Desmond, *Senior House Officer*
Search checked by Paul Wallman, *Specialist Registrar*

Clinical scenario

A 35 year old man presents to the emergency department with a one day history of a right sided facial weakness. Examination reveals a complete right facial nerve palsy, without any evidence of herpes zoster, middle ear disease, trauma, or further neurology. A diagnosis of idiopathic (Bell's) facial nerve palsy is made. You wonder whether early high dose steroids would improve his prognosis or speed of recovery.

Three part question

In [an adult with Bell's palsy] would [early steroid therapy] improve [time to recovery and outcome]?

Search strategy

Medline 1966 to 7/99 using the OVID interface. ({exp facial paralysis OR facial paralysis.mp OR bells palsy.mp} AND {exp steroids OR steroid\$.mp} AND maximally sensitive RCT filter) LIMIT to human AND english.

Search outcome

Altogether 72 papers were found of which 65 were irrelevant and three of insufficient quality

for inclusion. The remaining four papers are shown in table 3.

Comment

No studies have demonstrated a benefit in starting steroids in those with incomplete facial paralysis as they have a good prognosis. In addition, no studies have demonstrated an improvement in the time to recovery in any patients with Bell's palsy. If any benefit has been shown, then it is in those with a complete facial paralysis with steroids being started early. There are significant criticisms with all the studies conducted so far, and a large prospective randomised controlled trial demonstrating a clear benefit has yet to be conducted.

Clinical bottom line

Current evidence does not support the early use of high dose steroids in idiopathic incomplete facial nerve palsy. In patients with complete paralysis early steroids may be of benefit.

- 1 May M, Wette R, Hardin WB Jr, *et al*. The use of steroids in Bell's palsy: a prospective controlled study. *Laryngoscope* 1976;86:1111-22.
- 2 Wolf SM, Wagner JH, Davidson S, *et al*. Treatment of Bell's palsy with prednisolone: a prospective, randomised study. *Neurology* 1978;28:158-61.
- 3 Austin JR, Peskind SP, Austin SG, *et al*. Idiopathic facial nerve paralysis: a randomised double blind controlled study of placebo versus prednisolone. *Laryngoscope* 1993;103:1326-33.
- 4 Shafshak TS, Essa AY, Bakey FA. The possible contributing factors for the success of steroid therapy in Bell's palsy: a clinical and electrophysiological study. *J Laryngol Otol* 1994;108:940-3.

Table 3

Author, date, and country	Patient group	Study type (level of evidence)	Outcomes	Key results	Study weaknesses
May <i>et al</i> , 1976, USA ¹	51 patients Prednisolone <i>v</i> control	PRCT	Visual assessment of motor recovery Autonomic dysfunction Time of recovery	No difference No difference No difference	Small study
Wolf <i>et al</i> , 1978, USA ²	239 patients Prednisolone (60 mg) <i>v</i> control	PRCT	Electromyography Facial strength Autonomic dysfunction Time to recovery	No difference No difference Prednisolone is beneficial in preventing autonomic synkinesis No difference	Not blinded Control group not treated with placebo Only 30% of patients had complete denervation, and 20% had mild Bell's palsy on entry into the trial
Austin <i>et al</i> , 1993, USA ³	107 patients Prednisolone (60 mg) <i>v</i> control	PRCT	Functional nerve testing Time to recovery Electromyography	Significant improvement in facial nerve function No difference in recovery time No difference in denervation	Small study 29% lost to follow up after randomisation
Shafshak <i>et al</i> , 1994, Egypt ⁴	160 patients with complete facial palsy Prednisolone (1 mg/kg) <i>v</i> control	Clinical trial	Facial nerve excitability	Significantly better recovery with steroids, especially if given <24 hours after onset	Not randomised Not blinded Controls were those who refused steroids or had a contraindication

PRCT = prospective randomised controlled trial.