

Evidence-Based Emergency Medicine

Clinical Synopsis

TAKE-HOME MESSAGE

In the treatment of Bell's palsy, antiviral medications alone do not decrease the risk of incomplete neurologic recovery.

METHODS

DATA SOURCES

Electronic search of MEDLINE, EMBASE, LILACS, and Cochrane Neuromuscular Disease Group Trials register. Hand search of bibliographies of included trials. Contacted clinical experts and drug companies for unpublished data. Search current to December 2008.

STUDY SELECTION

Two authors independently assessed trials for inclusion, with 100% agreement. Only randomized, controlled trials of antivirals with or without corticosteroids were included.

DATA EXTRACTION AND SYNTHESIS

Assessment of bias was conducted according to prespecified Cochrane methods (eg, blinding, data reporting). For meta-analysis, a random-effects model was used when substantial heterogeneity was identified; otherwise, a fixed-effects model was used to combine data. All included studies randomized patients and used a control group for comparison. Blinding of patients and assessors was incomplete across included studies.

An installment of the *Systematic Review series*:

Do Antiviral Medications Improve Recovery in Patients With Bell's Palsy?

Jonathan Sherbino, MD, MEd

Division of Emergency Medicine, McMaster University, Hamilton, Ontario, Canada

Commentary

In 2 small trials, there was no significant difference in motor synkinesis (crocodile tears) at 1 year when antivirals or antivirals plus corticosteroids were compared with corticosteroids alone.

There was no significant difference in rates of adverse events between antivirals and any of the comparison treatments.

Bell's palsy—idiopathic, acute, unilateral, facial nerve paralysis—is a common emergency department complaint, involving 1 in 60 people in their lifetime, with 30% of patients experiencing delayed recovery or persistent facial nerve dysfunction.¹ Although the cause remains elusive, limited evidence suggests that reactivation of dormant herpes viruses (herpes sim-

plex virus-1, varicella zoster virus) induces demyelination of the facial nerve.^{2,3} Thus, therapy has been directed at decreasing viral titers and nerve inflammation.

This methodologically rigorous review of the literature suggests that standard clinical practice should be reconsidered. Although the focus was not specifically on corticosteroid therapy (there is another Cochrane review⁴ currently being updated), the findings presented here demonstrate the benefit of corticosteroids in reducing the risk of incomplete recovery with Bell's palsy. In contrast, antivirals were demonstrated to be inferior to corticosteroids and of similar benefit to placebo. Limited evidence suggests that the combination of antivirals and corticosteroids may be of greater therapeutic benefit than corticosteroids alone. This finding

Incomplete recovery at 1 year.

Treatment	Control	
	Placebo	Corticosteroid
Antiviral	n=1,886 RR=0.88 (95% CI 0.65–1.18)	n=768 RR=2.82 (95% CI 1.09–7.32)
Antiviral+corticosteroid	n=658 RR=0.56 (95% CI 0.41–0.76)	n=1228 RR=0.71 (95% CI 0.48–1.05)

RR, relative risk; CI, confidence interval.

*Shaded area indicates no statistically significant clinical effect.

has also been suggested in another systematic review.⁵ However, in both instances, the analyses are limited by the presence of heterogeneity of data and pooled results that do not reach statistical significance.

Finally, the most significant diagnostic challenge for the emergency physician is confirming that facial weakness truly represents Bell's palsy. The confirmation of a true lower motor neuropathy not resulting from other treatable conditions (eg, Lyme disease, tumor, abscess, hematoma) should be the first diagnostic step.

1. Holland NJ, Weiner GM. Recent developments in Bell's palsy. *BMJ*. 2004;329:553-557.
2. Adour KK, Ruboyianes JM, Von Doersten PG, et al. Bell's palsy treatment with acyclovir and prednisone compared with prednisone alone: a double-blind, randomised, controlled trial. *Ann Otol Rhinol Laryngol*. 1996;105:371-378.
3. Sweeney CJ, Gilden DH. Ramsay Hunt syndrome. *J Neurol Neurosurg Psychiatry*. 2001;71:149-154.
4. Salinas RA, Alvarez G, Ferreira J. Corticosteroids for Bell's palsy (idiopathic facial paralysis). *Cochrane Database Syst Rev*. 2009;(2):CD001942. DOI: 10.1002/14651858.
5. de Almeida JR, Al Khabori M, Guyatt GH, et al. Combined corticosteroid and antiviral treatment for Bell palsy. A systematic review and meta-analysis. *JAMA*. 2009;302:985-993.

This is a systematic review abstract, a regular feature of the *Annals'* Evidence-Based Emergency Medicine (EBEM) series. Each features an abstract of a systematic review

from the *Cochrane Database of Systematic Reviews* and a commentary by an emergency physician knowledgeable in the subject area. The source for this systematic review abstract is: Lockhart P, Daly F, Pitkethly M, Comerford N, Sullivan F. Antiviral treatment for Bell's palsy (idiopathic facial paralysis). *Cochrane Database Syst Rev* 2009, Issue 4: CD001869. DOI: 0.1002/14651858. The *Annals* EBEM editors assisted in the preparation of the abstract of this Cochrane systematic review.

Pauline Lockhart
Centre for Primary Care and Population Research
Division of Clinical and Population Sciences and Education
University of Dundee
Dundee, UK
E-mail: P.Lockhart@cpse.dundee.ac.uk