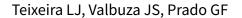


Cochrane Database of Systematic Reviews

Physical therapy for Bell's palsy (idiopathic facial paralysis) (Review)



Teixeira LJ, Valbuza JS, Prado GF. Physical therapy for Bell's palsy (idiopathic facial paralysis). Cochrane Database of Systematic Reviews 2011, Issue 12. Art. No.: CD006283. DOI: 10.1002/14651858.CD006283.pub3.

www.cochranelibrary.com



[Intervention Review]

Physical therapy for Bell's palsy (idiopathic facial paralysis)

Lázaro J Teixeira¹, Juliana S Valbuza², Gilmar F Prado³

¹Department of Neurology, Universidade Federal de São Paulo, Camboriu, Brazil. ²Neuro-Sono, Department of Neurology, Universidade Federal de São Paulo, São Paulo, Brazil. ³Department of Neurology, Federal University of São Paulo, São Paulo - SP, Brazil

Contact address: Lázaro J Teixeira, Department of Neurology, Universidade Federal de São Paulo, R. Ana Garcia Pereira, n 167, Camboriu, Santa Catarina, 88340-970, Brazil. lazarojt@terra.com.br.

Editorial group: Cochrane Neuromuscular Group.

Publication status and date: Edited (no change to conclusions), published in Issue 2, 2012.

Citation: Teixeira LJ, Valbuza JS, Prado GF. Physical therapy for Bell's palsy (idiopathic facial paralysis). *Cochrane Database of Systematic Reviews* 2011, Issue 12. Art. No.: CD006283. DOI: 10.1002/14651858.CD006283.pub3.

Copyright © 2012 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

ABSTRACT

Background

Bell's palsy (idiopathic facial paralysis) is commonly treated by various physical therapy strategies and devices, but there are many questions about their efficacy.

Objectives

To evaluate physical therapies for Bell's palsy (idiopathic facial palsy).

Search methods

We searched the Cochrane Database of Systematic Reviews and the Cochrane Central Register of Controlled Trials (*The Cochrane Library*, Issue 1, 2011), MEDLINE (January 1966 to February 2011), EMBASE (January 1946 to February 2011), LILACS (January 1982 to February 2011), PEDro (from 1929 to February 2011), and CINAHL (January 1982 to February 2011). We included searches in clinical trials register databases until February 2011.

Selection criteria

We selected randomised or quasi-randomised controlled trials involving any physical therapy. We included participants of any age with a diagnosis of Bell's palsy and all degrees of severity. The outcome measures were: incomplete recovery six months after randomisation, motor synkinesis, crocodile tears or facial spasm six months after onset, incomplete recovery after one year and adverse effects attributable to the intervention.

Data collection and analysis

Two authors independently scrutinised titles and abstracts identified from the search results. Two authors independently carried out risk of bias assessments, which took into account secure methods of randomisation, allocation concealment, observer blinding, patient blinding, incomplete outcome data, selective outcome reporting and other bias. Two authors independently extracted data using a specially constructed data extraction form. We undertook separate subgroup analyses of participants with more and less severe disability.

Main results

For this update to the original review, the search identified 65 potentially relevant articles. Twelve studies met the inclusion criteria (872 participants). Four trials studied the efficacy of electrical stimulation (313 participants), three trials studied exercises (199 participants), and five studies compared or combined some form of physical therapy with acupuncture (360 participants). For most outcomes we were unable to perform meta-analysis because the interventions and outcomes were not comparable.



For the primary outcome of incomplete recovery after six months, electrostimulation produced no benefit over placebo (moderate quality evidence from one study with 86 participants). Low quality comparisons of electrostimulation with prednisolone (an active treatment) (149 participants), or the addition of electrostimulation to hot packs, massage and facial exercises (22 participants), reported no significant differences. Similarly a meta-analysis from two studies, one of three months and the other of six months duration (142 participants) found no statistically significant difference in synkinesis, a complication of Bell's palsy, between participants receiving electrostimulation and controls. A single low quality study (56 participants), which reported at three months, found worse functional recovery with electrostimulation (mean difference (MD) 12.00 points (scale of 0 to 100) 95% confidence interval (CI) 1.26 to 22.74).

Two trials of facial exercises, both at high risk of bias, found no difference in incomplete recovery at six months when exercises were compared to waiting list controls or conventional therapy. There is evidence from a single small study (34 participants) of moderate quality that exercises are beneficial on measures of facial disability to people with chronic facial palsy when compared with controls (MD 20.40 points (scale of 0 to 100), 95% CI 8.76 to 32.04) and from another single low quality study with 145 people with acute cases treated for three months, in which significantly fewer participants developed facial motor synkinesis after exercise (risk ratio 0.24, 95% CI 0.08 to 0.69). The same study showed statistically significant reduction in time for complete recovery, mainly in more severe cases (47 participants, MD -2.10 weeks, 95% CI -3.15 to -1.05) but this was not a prespecified outcome in this meta analysis.

Acupuncture studies did not provide useful data as all were short and at high risk of bias. None of the studies included adverse events as an outcome.

Authors' conclusions

There is no high quality evidence to support significant benefit or harm from any physical therapy for idiopathic facial paralysis. There is low quality evidence that tailored facial exercises can help to improve facial function, mainly for people with moderate paralysis and chronic cases. There is low quality evidence that facial exercise reduces sequelae in acute cases. The suggested effects of tailored facial exercises need to be confirmed with good quality randomised controlled trials.

PLAIN LANGUAGE SUMMARY

Physical treatments for idiopathic facial paralysis

Bell's palsy is an acute disorder of the facial nerve, which produces full or partial loss of movement on one side of the face. The facial palsy gets completely better without treatment in most, but not all, people. Physical therapies, such as exercise, biofeedback, laser treatment, electrotherapy, massage and thermotherapy, are used to hasten recovery, improve facial function and minimise sequelae. For this updated review we found a total of 12 studies with 872 participants, most with high risk of bias. Four trials studied the efficacy of electrical stimulation (313 participants), three trials studied exercises (199 participants), and five studies combined some form of physical therapy and compared with acupuncture (360 participants). There is evidence from a single study of moderate quality that exercises are beneficial to people with chronic facial palsy when compared with controls and from another low quality study that it is possible that facial exercises could help to reduce synkinesis (a complication of Bell's palsy), and the time to recover. There is insufficient evidence to decide whether electrical stimulation works, to identify risks of these treatments or to assess whether the addition of acupuncture to facial exercises or other physical therapy could produce improvement. In conclusion, tailored facial exercises can help to improve facial function, mainly for people with moderate paralysis and chronic cases, and early facial exercise may reduce recovery time and long term paralysis in acute cases, but the evidence for this is of poor quality. More trials are needed to assess the effects of facial exercises and any risks.