How should children with Bell's Palsy be treated?

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Introduction

What is Bell's Palsy?[1]

- An episode of facial muscle weakness or paralysis due to damage to facial nerve
- Mainly affects one side of the face
- Cause unknown
- Can affect anyone at any age

Additional Symptoms[1]

- Ear pain
- Loss of taste or hypogeusia (diminished taste acuity)
- Excessive tearing or crocodile tears
- Other clinical features shown below

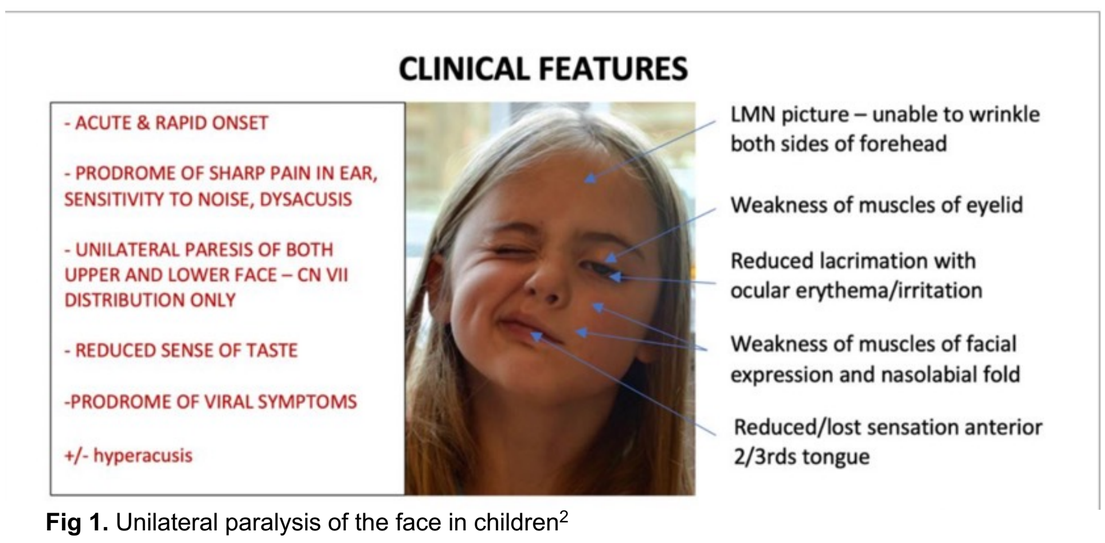


Fig 1. Unilateral paralysis of the face in children[2]

Long-term effect of BP[1]

Undiagnosed/ Untreated Bell's Palsy → **25-30% show incomplete recovery**

Visual loss

Diminished quality of life

permanent damage to the facial nerve

Incomplete recovery

Psychological distress

Abnormal growth of nerve fibers

Functional impairment of facial muscles

Treatments for BP[1]

Pharmacological

Corticosteroids

Anti-viral

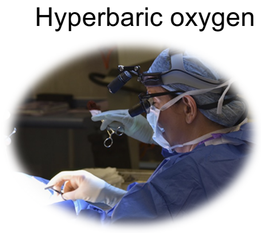
Non-Pharmacological

Botulinum toxin

Physiotherapy

Hyperbaric oxygen

Acupuncture



Surgery

The Challenge

Use of corticosteroids and other treatments in children are not very well established. Moreover, differences in treatment outcomes in adults and children suggests differences in mechanism. As such, a separate course of action awaits to be explored for treatment of BP in children.

Aim

Undertake a systematic review of data presented to date on all established and potential treatments for BP to identify the most effective and safe treatment for children.

Impact

A lack of up-to-date systematic reviews can compromise patient treatment, increase patient's anxiety, cause a waste of time and money, and result in prolonged disability. Results of this review will aim to provide some reassurance and clarity to both doctors and patients in the management of BP.

Methods

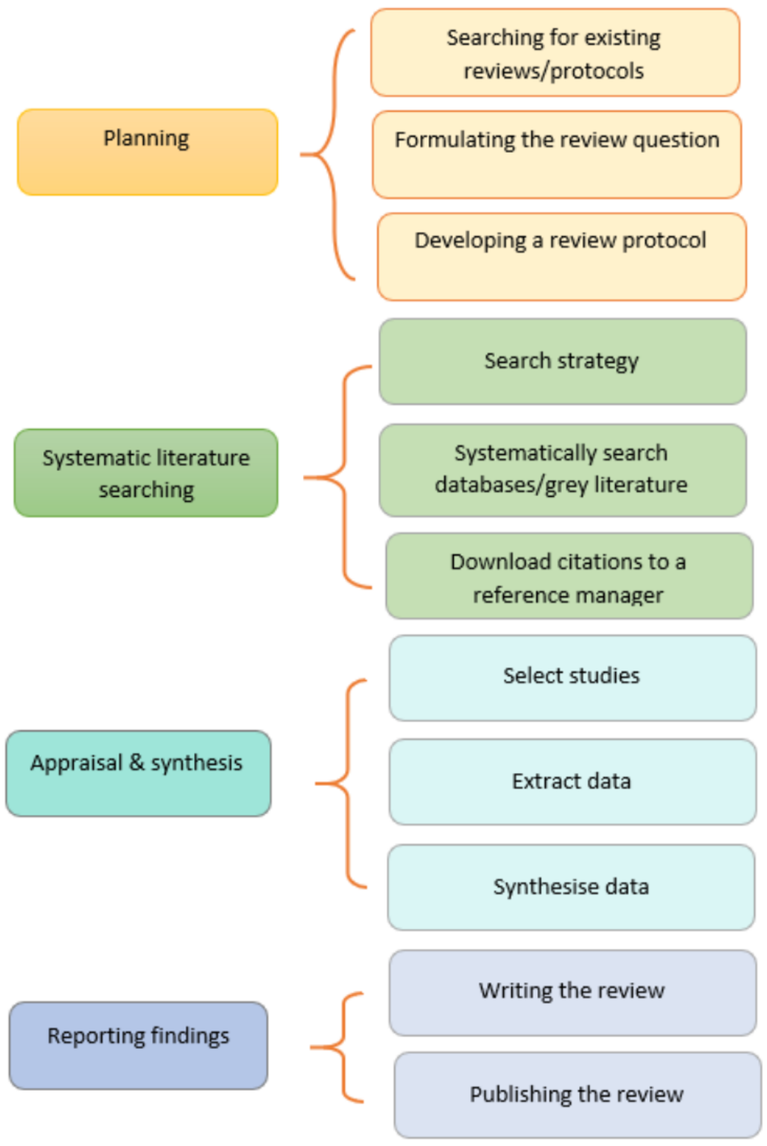


Fig 2. The methodological steps involved in a systematic review are outlined above (AUT library ©). Primary outcome measured: incomplete recovery. Treatment effects will be measured using Mantel- Haenszel test.

Results

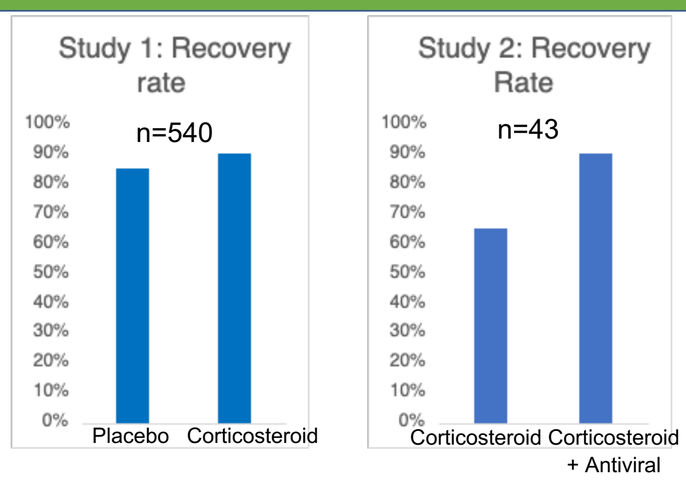


Fig 3. Data were extracted from two studies in children aged under 18. Study 1 assessed the recovery rate for corticosteroids vs placebo over 10 days[3] and Study 2 assessed the recovery rate for corticosteroids vs corticosteroids+ antivirals over 7 days[4]. n= sample size.

Challenges with studies in children

Different courses of treatment

Conclusion awaits

Discussion and Future Directions

- The study search highlights challenges associated with conducting systematic reviews for BP in children due to the limited number of trials
- Initial assessment suggests that treatment with corticosteroids might be better than none, and combination treatment might be more superior than corticosteroid only treatments. However, no definitive conclusions can be drawn at this stage
- While we have submitted a study protocol, we are awaiting Cochrane to give us a list of additional studies to extract data from and include in our review

References

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4. Khajeh A, Fayyazi A, Soleimani Gh, Miri-Aliabad Gh, & Shaykh Veisi S. (2014). Comparison of the Efficacy of Combination Therapy of Prednisolone-Acyclovir with Prednisolone Alone in Bell's Palsy. *Iran J Child Neurol. Spring*, *9*(2), 17–20.