INTRODUCTION

Facial synkinesis is a potentially life-altering sequela of facial nerve injury. Aberrant regeneration of the facial nerve after injury can result in involuntary movements that have a detrimental impact on function and quality of life.

Despite the necessity of effective treatment, there is significant controversy among clinicians on the optimal treatment modality, characteristics of therapy, and how to report treatment outcomes.

The goals of this study were to comprehensively summarize and evaluate the quality of the current synkinesis literature, and to compare the effectiveness of common synkinesis treatment modalities.

METHODS

A medical librarian performed a literature search of Embase, Ovid Medline, Scopus, Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, and clinicaltrials.gov in February 2018 for relevant concept terms.

Full-text English language articles describing prospective and retrospective cohort studies or randomized controlled trials investigating treatments for synkinesis were eligible for inclusion.

Reviews, comments, experimental studies, and animal studies were excluded.

Two authors (JBL and JCYL) independently reviewed articles and extracted data.

Quality was assessed by the Newcastle-Ottawa scale (cohort studies) and the Cochrane Collaboration tool (RCTs).

RESULTS

The most used outcome measurement was the Sunnybrook Facial Grading System, followed by the Movement of Points on Lips and the Chemical Denervation + Physical Therapy combination.

DISCUSSION

Currently, there is no gold standard treatment or outcome reporting measure for facial synkinesis.

Despite the sufficient availability of studies, the high heterogeneity, low quality, and overall scientific rigor demonstrated in the current literature does not allow adequate comparisons of effectiveness.

Sunnybrook Facial Grading System was the most frequently used outcome measure (17 studies, 56.7%).

According to the Newcastle-Ottawa Scale conversion to AHRQ standards, 28 studies were of poor quality (93.3%).

Adoption of standardized patient evaluation and outcome reporting methods are necessary for robust comparative effectiveness studies in this area.