

INPLASY PROTOCOL

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Support: NA.

**Review Stage at time of this
submission:** Data analysis.

Conflicts of interest:
None declared.

Effectiveness and Safety of Botulinum Toxin in the Treatment of Complex Regional Pain Syndrome: A Systematic Review and Meta-Analysis

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Review question / Objective: P: patients with complex regional pain syndrome; I: Botulinum toxin; C: Treatments with or without botulinum toxin, or no control arm; O: Pain, adverse events or other complex regional pain syndromes.
Condition being studied: Complex regional pain syndrome (CRPS) is characterized by pain, limited range of motion, swelling, skin changes, vasomotor instability, and patchy bone demineralization.¹ Moreover, approximately 20% of patients with CRPS develop fixed dystonia.^{2, 3} However, the pathogenesis of CRPS remains unclear.⁴ Several diagnostic criteria have been proposed, including the earlier Orlando criteria and the current Budapest criteria.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 21 October 2022 and was last updated on 21 October 2022 (registration number INPLASY2022100087).

INTRODUCTION

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Contributions of each author:

Author 1 - Yu-Chi Su.

Author 2 - Yao-Hong Guo.

Author 3 - Pei-Chun Hsieh.

Author 4 - Yu-Ching Lin.

METHODS

Participant or population: Patients with complex regional pain syndrome.

Intervention: Botulinum toxin, no limitations in application route.

Comparator: Not limited.

Study designs to be included: Randomized controlled trials (RCT) and nonrandomized controlled studies (NRS).

Eligibility criteria: Studies that did not mention the route of application will be excluded.

Information sources: Embase, PubMed and Cochrane Library.

Main outcome(s): Pain.

Additional outcome(s): Adverse events.

Quality assessment / Risk of bias analysis: Risk of bias.

Strategy of data synthesis: Quality assessment was performed using the Cochrane risk-of-bias tool and Joanna Briggs Institute Critical Appraisal Checklist for Quasi-Experimental Studies.

Subgroup analysis: Between different application routes.

Sensitivity analysis: Studies with higher risk of bias were excluded.

Country(ies) involved: Taiwan, ROC.

Keywords: Botulinum neurotoxin; complex regional pain syndrome; lumbar sympathetic block.