

The efficacy and safety of botulinum toxin injection in the treatment of sialorrhoea in children: a structured review

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Background:

Drooling is common in children with neurodisability, with effects on care burden, speech, eating and socialisation. We conducted a scoping review on the efficacy and safety of botulinum toxin (BoNT) injections for sialorrhoea in children.

Methods:

We searched MEDLINE and EMBASE (conceptionâ€“December 2021) for randomised controlled trials, case-control studies and large case series (n>50) involving children with sialorrhoea treated with BoNT. We reviewed inclusion criteria, outcome measures, botulinum preparation, and procedure techniques to comment on the efficacy and safety of treatment.

Results:

Thirteen studies met the inclusion criteria. Due to variations in outcome measures and intervention protocols, meta-analysis was not feasible. Most studies provided limited evidence due to small sample sizes and/or study design limitations. However, all studies reported a reduction in drooling severity after BoNT, including SIPEXI which was the largest randomised trial. Studies were lacking on dose optimisation, duration and efficacy of repeat injection, the utility of ultrasound and sedation, outcomes with BoNT B, and predictors of adverse outcomes.

Conclusion:

Intraglandular BoNT injections are safe and efficacious for sialorrhoea in children but further studies are needed on many important aspects of treatment.