

Poster presentation

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Effect of Botulinum Toxin type-A (Botox®) on neck pain and craniocervical headaches caused by trapezius spasm in a child with generalised joint hypermobility resulting from Noonan's Syndrome

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Background

A twelve year old female with generalised joint hypermobility (Beighton 8/9) from Noonan's syndrome presented with chronic neck pain which caused frequent headaches. Touching the trapezius reproduced the pain and range of movement at the cervical spine was decreased. She had been managed unsuccessfully with manual techniques, mobilisation, stretches and TENS over the prior twelve months. Poor sleep due to pain caused fatigue and decreased participation in school and physical activity.

Materials and methods

N of 1 trial design to investigate the efficacy of Botox® to reduce muscle spasm.

Baseline measures of weekly average pain (VAS), maximum pain (VAS), episodes of neck pain, episodes of headache and doses of paracetamol (acetaminophen) were obtained over 5 weeks. The intervention consisted of injecting 25 units of Botox® into each trapezius (total 50 units) over multiple sites. Outcome measures were recorded for seven weeks following treatment. Data was analysed using the c-statistic method in Excel®.

Results

At six weeks average pain score decreased from a median of 48.5 to 20.0 (c-statistic $p = 0.012$). Maximum pain decreased from a median of 72.0 to 40.0 (c-statistic $p = 0.009$). Episodes of neck pain per week reduced from a median of 4 to 2 (c-statistic $p = 0.009$). No significant

change was seen in the number of episodes of headaches per week, which reduced from 2 to 1 ($p = 0.057$). Analgesic requirement reduced from 4 paracetamol per week to 2 (c-statistic $p = 0.012$).

Conclusion

Botulinum toxin injections were an effective treatment.