A marked increase in “Smartphone Squint” in children during Covid lockdown: effectively treated with Botox

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Purpose

There was a striking increase in incidence of Acute Acquired Comitant Esotropia (AACE) in children and young people, coinciding with the Covid-19 pandemic and lockdown measures.

We report on the beneficial effect of Botulinum toxin A injection to the medial rectus muscle/s in successfully treating this condition.

Methods

Cases presenting to Paediatric Ophthalmology in NHS Highland with AACE over a 7-year period were retrospectively identified.

Patients were offered a procedure under GA of 2.5IU Botulinum toxin A (Botox, Allergan, Irvine, CA, USA) into the medial rectus muscle/s.



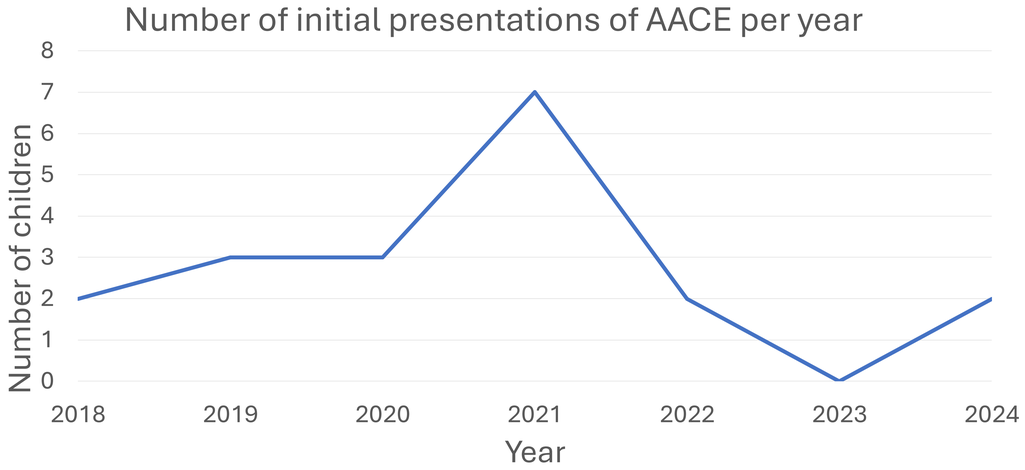
Results

Patients	
M:F	10:9
Age range	8-17 yrs (mean 12)
Cycloplegic refraction	3 Myopic 2 Hypermetropic with full correction 14 emmetropic

Clinical details	
Number of patients	19
Number treated with Botox	17
Unilateral:bilateral Botox	4:15
Cases of temporary exotropia	9
Cases of temporary ptosis	5

Treatment outcomes

- Straight eyes with no diplopia in **all cases** by 6 weeks
- Normal motor & sensory fusion re-established in **all cases** by 6 weeks
- Of those not offered Botox: 1 child achieved resolution with complete abstinence of near screen use. 1 child underwent conventional strabismus surgery.
- 2 cases returned with further episode 3 years after initial treatment. For these, further Botox was not successful and conventional surgery was required.



Discussion

- We demonstrate a significant, temporary increase in the incidence of AACE during the Covid lockdowns.
- We suggest this is due to an increase in screen use to meet social, leisure and educational needs during this time.
- We recommend Botox as an alternative to surgical management of AACE.
- For the majority of patients, a single treatment of Botox gives an excellent clinical outcome, with a favourable safety and efficacy profile, without the risks of a longer and more invasive procedure.
- There is a potential role for public health information on the risk of prolonged near screen use.
- For second presentations, direct progression onto squint surgery may be indicated.