

UK Paediatric Glaucoma Society (UKPGS) Annual Meeting
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Approved CPD 6 points (Royal College of Ophthalmologists)

Abstracts

25 - Changes in axial length in PCG patients after surgery

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Purpose: To compare the changes in the axial length of children with primary congenital glaucoma (PCG) treated with conventional angle surgery (CAS): trabeculotomy with rigid probe or goniotomy, or with 360-degree trabeculotomy assisted with microcatheter (MCT).

Design: Retrospective, comparative, interventional case series.

Methods: Review of consecutive children with PCG undergoing angle surgery including cases with previous surgery, from January 2012 until March 2018 at Moorfields Eye Hospital.

Main outcome: Difference between pre- and post-operative ultrasonic eye axial length.

Results: 65 eyes were included, 37 treated with CAS and 28 with MCT. IOP dropped from 33 preop to 21 mmHg postop ($p < .0001$) in the CAS group, while from 31 to 14 mmHg ($p < .0001$) in the MCT group. Axial length changed in CAS patients from 22.07 mm preop to 23.2 mm postop (+1.13 mm, $p = .0001$) and in MCT patients from 23.08 mm to 23.04 mm (-0.04 mm, $p = .86$). The difference in the change in axial length was significantly different between MCT and CAS patients 1.17 mm (95% CI -0.49 to 1.81; $p = .0009$). Patient's age was 239 ± 273 days in CAS treated and 319 ± 328 days in MCT ($p = 0.29$). Time between surgery and axial length measurement was 197 ± 296 days in CAS and 110 ± 254 days in MCT treated. ($p = 0.22$). No significant complications were found in either group.

Conclusion: Despite that in both groups the IOP was significantly reduced after surgery, CAS achieved worse anatomical results with a significant enlargement of the axial length postoperatively.