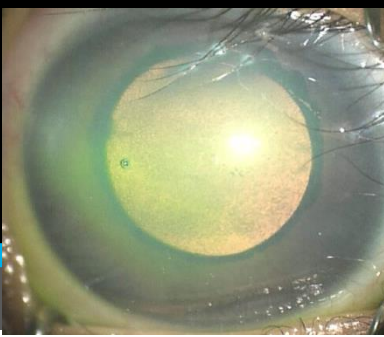




Prognostic significance of Congenital Ectropion Uveae in the outcome of Newborn Glaucoma

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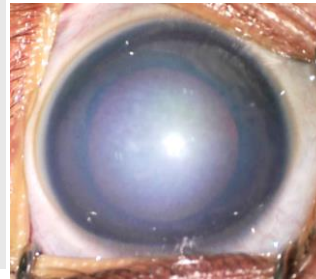
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Introduction

CEU is thought to represent a distinct phenotype of childhood glaucoma, characterized by the presence of iris hypoplasia and pigment epithelium on the anterior surface of iris stroma.

Purpose

To describe “neonatal-onset congenital ectropion uveae (N-CEU)” as a distinct clinical entity of newborn glaucoma (NG).



Materials & Methods

- **Setting:** Tertiary care Postgraduate Teaching Institute
 - **Patient population:** Consecutive patients of NG with either CEU or primary congenital glaucoma (PCG)
 - Presented between 1st July 2016 to 30th September 2017, and minimum post-operative follow up of 1 year.
 - Any ocular anomaly apart from CEU were excluded.
- Intervention:** Goniotomy or trabeculotomy with trabeculectomy depending upon corneal clarity.

Main Outcome Measures

- Clinical features at presentation
 - Surgical outcomes at 1 year:
- Good** - IOP was <16 mm Hg without drugs
Satisfactory - IOP <16 mm Hg, on upto 2 topical drugs
Poor - IOP >16 mm Hg on 3 topical drugs, need for systemic drugs or re-surgery for IOP control.

Results

Total – 36 eyes of 19 patients

Baseline characteristics	N-CEU (n=10 patients, 20 eyes)	N-PCG (n=9 patients, 16 eyes)
IOP(mmHg)	22.5± 7.4	19.6 ± 6.5
Corneal clarity grade	2.0 ± 0.79	1.4 ± 0.8
Corneal diameter(mm)	12.1 ± 1.7	12.7 ± 1.5
Axial length(mm)	20.14 ± 2.7	20.3 ± 2.3
CCT(μ)	801.5 ± 193.4	640.2 ± 81.6

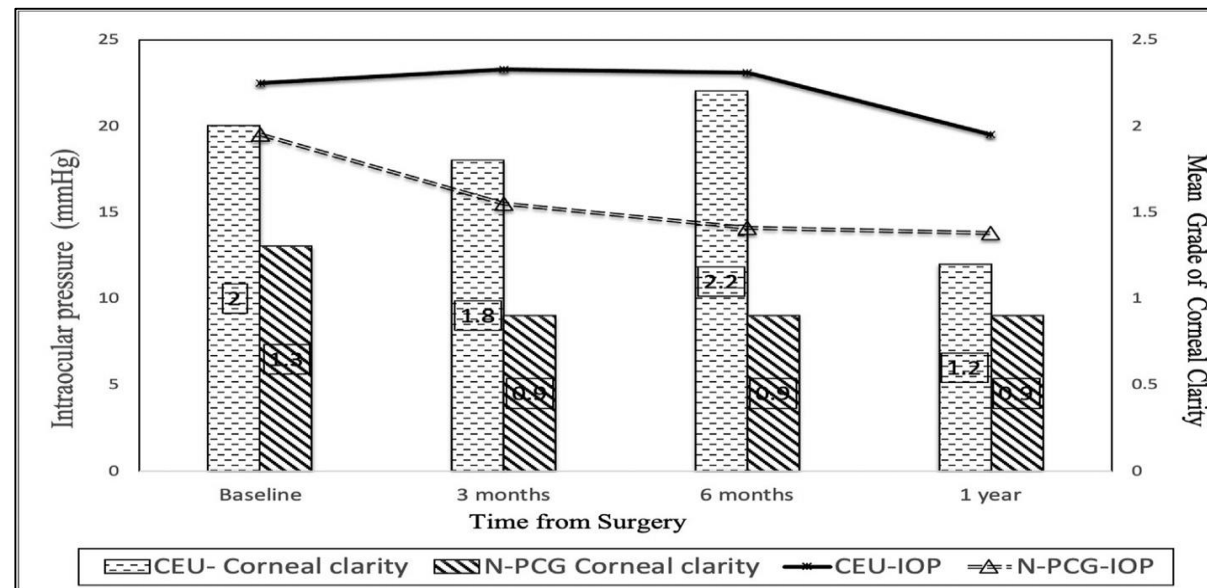
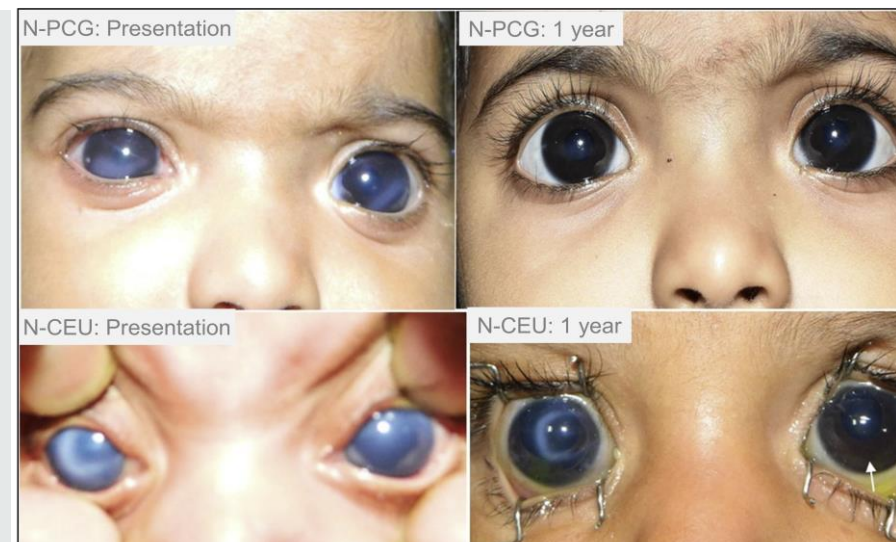


Figure showing a typical newborn PCG (top) and newborn CEU (bottom). Note the corneal clarity after one year



Surgical outcomes

	N-CEU	N-PCG
Initial surgery		
Goniotomy	2(10%)	7(43.7%)
CTT	18(90%)	9(56.3%)
Additional surgeries required	14(70%)	3(13.3%)
Outcomes		
Good	3(15%)	12(75%)
Satisfactory	3(15%)	1(18.75%)
Poor	14(70%)	3(6.25%)

Discussion

- N-CEU eyes had significantly worse corneal clarity
- 10% of them had corneas clear enough for goniotomy compared to 43.7% of eyes with N-PCG
- Babies with N-CEU had higher IOPs and thicker corneas at baseline.
- Surgical outcomes were poorer for N-CEU.
- More number of them required additional surgeries for IOP control(70%) in comparison to the N-PCG group (13%).

Conclusion

Neonatal-onset CEU appears to be distinct from the unilateral CEU in older patients described in literature, and may be considered a poorer prognosis phenotype of neonatal-onset glaucoma.