

EVRS Multicentric Study-Giant Retinal Tears:

Anatomical and Functional Outcomes of Surgical Management in Patients with Giant Retinal Tear Retinal Detachments

a. In Pediatric Age Group

b. In Adult Group

- *Excel sheet is prepared as one, and you can use the same table for both pediatric and adults noting the age of the patient. The data of the first case is filled in the sheet.*

Giant retinal tears (GRTs) are full-thickness circumferential tears involving more than 90 degrees of the retina. They are secondary to ocular trauma, high myopia, periheral retinal degenerations, aphakia, pseudophakia, congenital glaucoma, genetic mutations involving collagen, prematurity, and young age.

GRTs causing rhegmatogenous retinal detachments (GTRD) comprise about 1.5% of all RRDs, and the mean age of incidence is around 40 years, being more common in males.

Surgical techniques used in the management of GTRDs include primary vitrectomy with gas or silicone oil tamponade, with or without combined scleral buckle, rarely scleral buckle alone or pneumatic retinopexy alone.

The management of GTRD is still not clearly defined, and preferences of surgical techniques, and tamponades can differ between surgeons. Besides single surgery success rate can be lower compared to RRDs, with higher PVR risk, and lower functional success.

On the other hand, GTRDs in pediatric age group have differences in etiology, surgical technique, and outcomes, which needs to be clarified.

Study Design

Multicentric, retrospective, interventional study

Primary Outcome

To evaluate the etiology, demographic features, risk factors, clinical presentation of GTRD.

To determine functional and anatomical outcomes of surgical management of GTRD as well as complications in pediatric and adult age groups of patients in 2 different cohorts.

Secondary Outcomes

To evaluate success rates of different surgical techniques in pediatric and adult age groups of patients in 2 different cohorts.

To evaluate factors affecting the final anatomical and functional success.

To evaluate the fellow eyes for possible retinal events and prophylaxis.

To evaluate the underlying/associated ocular and systemic pathologies.

Comparison of subgroup success rates according to associated factors (Stickler, Marfan, prematurity, trauma, high myopia, etc).

Inclusion Criteria

All of the patients with GTRDs who had at least 6 months of follow-up.

In pediatric age group, patients <18 years old are included.

In adult age group patients ≥ 18 years old are included.

Exclusion Criteria

Patients with other ocular diseases such as uveitis, diabetic retinopathy, other vascular diseases, AMD will be excluded from the study.

- **Visual acuities are required in LogMar values.** Below is the table that you can use to convert to LogMAR.

Table 1. Conversion of LogMAR to Snellen Equivalents.[22]

logMAR	Snellen Equivalent
3	20/20,000 (or hand movements at 2 feet)
2	20 /2000 (or finger counting at 2 feet)
1.60	20/800
1.30	20/400
1.20	20/320
1.18	20/300
1.10	20/250
1	20/200
0.90	20/160
0.88	20/150
0.80	20/125
0.76	20/114
0.70	20/100
0.60	20/80
0.54	20/70
0.50	20/63
0.48	20/60
0.40	20/50
0.30	20/40
0.20	20/32
0.18	20/30
0.10	20/25
0.00	20/20
-0.10	20/16
-0.20	20/12.5
-0.30	20/10

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