



INTERNATIONAL JOURNAL OF PHARMACEUTICAL RESEARCH AND BIO-SCIENCE

STUDY OF 20 CASES OF RETINAL DIALYSIS

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Accepted Date: 20/08/2015; Published Date: 27/10/2015

Abstract: A study of 20 cases of retinal Dialysis causing retinal detachment, their surgical management and prognosis were reviewed in Sree Balaji Medical College and hospital, Chromepet, Chennai, during the period of 3 years (2012-2015). Retinal Dialysis or disinsertion has been recognized as a cause of retinal detachment for nearly a century.

Keywords: Retinal dialysis, retinal detachment, inferotemporal, circumferential plombage



PAPER-QR CODE

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Access Online On:

www.ijprbs.com

How to Cite This Article:

K. Mohan Raj, IJPRBS, 2015; Volume 4(5): 336-339

INTRODUCTION

A dialysis is a specific type of retinal tear that is oriented circumferentially and located adjacent to the ora serrata. A dialysis is usually located in the ciliary epithelium just anterior to the ora or in the retina at or slightly posterior to the ora . Dialyses are a common cause of retinal detachment and are the leading cause of traumatic retinal detachment in children and young adults. Because a patient may be asymptomatic, a dialysis may be missed during ophthalmoscopic examination of the ocular fundus unless scleral indentation is used. Anatomical reattachment of detachments from retinal dialysis is highly successful for dialyses of both traumatic and idiopathic origin, with good visual results obtained postoperatively.

MATERIALS AND METHODS:

During the period 2012- 2015, 20 cases of Retinal Dialysis causing Retinal Detachment were operated upon. These occurred in a total of 256 cases of Rhegmatogenous Detachment Operated, causing an incidence of 6.1%, Preoperative evaluation and post- operative evaluation of these cases were made.

Patients had undergone surgery after preoperative evaluation like Indirect Ophthalmoscopy, 3 Mirror Goldmann Slitlamp Examination and any evidence of uveitis, Hypotony & Angle Recession with glaucoma were looked for. Eleven cases with macular involvement had circumferential Silicon Plombage and SRF drained. Nine cases where Macula was not involved had only circumferential plombage.

Table 1 - AGE & SEX DISTRIBUTION

AGE	MALE	FEMALE
5 – 10 YRS	2	-
11 – 20 YRS	7	2
21 – 30 YRS	6	2
31 – 40 YRS	1	-

Age ranged from 7 to 36 years. Males outnumbered females. More than half were below 20 years and none exceeded 40 years. M / F ratio is 80: 20

Table 2 - TYPES OF DIALYSIS & QUADRANT INVOLVED

16 cases	Infero Temporal
2 cases	Upper Nasal.
2 cases	Bilateral

QUADRANT: Retinal Dialysis involves the Infero – Temporal quadrant commonly. In this series 16 cases were Infero – Temporal Dialysis. Two cases were Upper Nasal and 2 cases were bilateral. The incidence of Infero – Temporal quadrant in this series (80%) is higher than in the series studied by VictorM.Zion et al (59.7%)

Table 3 - VISUAL ACUITY BY SNELLEN'S

VISUAL ACUITY	PRE – OPERATIVE	POST – OPERATIVE
HM – 1/60	8	1
2/60 – 6/60	7	3
6/60 – 6/12	5	10
6/9 – 6/6	-	6

In our series, majority had Pre- operative vision of hand movements to 1/60 and post operatively the vision ranged between 6/60 to 6/12. We found that vision improved post operatively in our series.

DISCUSSION: Although the mechanism of Retinal Dialysis is not fully known, Genetic, Developmental, Hormonal and traumatic factors have been implicated. In our study, Trauma as a cause of Retinal Dialysis was seen in 6 cases, since Infero – Temporal Dialysis was common in our study. According to Hagler, lower temporal dialysis forms a separate syndrome and does not appear to be related to trauma.

SYMPTOM: By far the most common initial symptom was decreased vision secondary to macular involvement. No history of field defects, sudden shower of floaters and flashes was obtained. The symptoms were never acute. 2 cases were referred as uveitis and 2 cases were referred as Central Serous Retinopathy. 3 cases were asymptomatic and retinal dialysis was diagnosed on routine indirect ophthalmoscopy. Associated findings like subluxation of lens, angle recession, choroidal tears, choroidal detachment were not found in our series, since most of the patients did not the history of trauma.

I.O.P. Relative hypotony accompanies Retinal Detachment. Victor. M Zio in his series found that 12% of the cases of Retinal Dialysis showed rise of I.O.P. more than 22 mm of Hg. In our series all 20 cases showed Hypertension only.

MANAGEMENT: All these 20 cases were operated with circumferential plomb. The plomb was placed at the posterior edge of the dialysis to cover it fully and not to wall it off. The success rate of the surgical management of the Retinal Dialysis is 95%.

COMMENT: This study characterizes the features of Detachment following Retinal Dialysis. Age, sex distribution, symptoms and Principal quadrants are similar to those previous reviews of the subject. Retinal Dialysis occurs for 6% of all Rhegmatogenous detachment. Males were predominantly involved. Common age group was 7 – 20. In 80% the lower temporal quadrant was involved unilaterally. History of Trauma was present in 30% of cases; since the incidence of trauma was lower for inferior temporal detachment. Commonest symptom was defective vision only. Any unexplained macular oedema should be thoroughly investigated and examined for Retinal Dialysis. The surgical management of these cases, through they were long standing-gave good anatomical and functional results.

Any unexplained macular oedema must be examined with Indirect Ophthalmoscope and 3 Mirror Goldman Lens etc. (Three cases referred as macular oedema in this series turned out to be Retinal Dialysis with macular involvement). Unexplained uveitis also should raise the suspicion.

Even though these patients came to us late, we achieved anatomical success in 19 out of 20 cases (95%) and fairly good visual recovery in 80% of the cases.

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