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MANAGEMENT OF RHEGMATOGENOUS RETINAL DETACHMENT WITH BUCKLE SCLERA AND CRYORETINOPEXCY

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ABSTRACT

Introduction: Retinal detachment is divided into three categories. The most common type is the regmatogen retinal detachment (rhegmatogenous retinal detachment), which is the result of the tearing of the retinal lining. Actions can be Buckle Sclera, vitrectomy pars plana and pneumatic retinopexy. The purpose of this case report to reported Management of Rhegmatogenous Retinal detachment with Buckle Sclera and Cryoretinopexcy.

Method: A 58 years old man with chief complaint The left eye blurred like a curtain covered since 5 days, floaters (+), photopsia (+), headache (+), Patients never complain of lost vision suddenly before, eyeball pain is not there. History of trauma (+), On examination, the visual acuity 6/9 RE and 1/60 LE, anterior segment lens cloudy (+) nuclaer gr III, fundus photograph we found retinal contours of the blood vessels well, tear (+) is directed at 2-3 hours of superior-temporal and fovea reflex (-), B-scan ultrasound of the posterior segment the retina is not intact, Membran like lesion detachment which attach to optic nerve.

Results: The Sclera buckles and cryoretinopexy were performed under general antesthesia. Visual acuity post-operative on left eye 2/60. subconjunctival bleeding (+), the fundus photographs retinal attach but the macular reflex is still negative. post-operative therapy with topical steroid and antibiotic eye drops, oral antibiotic, and oral analgetic. follow up 1-month post-operative visual acuity 5/60 with fundus photograph obtained retina attach.

Conclusion: a diagnosis of retinal detachment can be found, with the discovery of fullthickness breaks or defects occurring from the retinal neurosensory, this break will allow the vitreous to enter the defect gap between the retinal neurosensory and RPE. Based on the clinical features of the posterior segment, the detachment area was found with the location of the Linchoff Rule 2 break based on the American Academy of Ophthalmology. The objective of operative therapy was to reattach the retinal portion of which one of them was buckle sclera and cryoretinopexcy.

Keywords: retinal detachments, buckle sklera, cryoretinopexy

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INTRODUCTION

Retinal detachment is divided into three categories. The most common type is the regmatogen retinal detachment (rhegmatogenous retinal detachment), which is the result of the tearing of the retinal lining. The second category is the tractional retinal detachment based on the occurrence of vitreous attachment with the retina which results in the pull of neurosensory from RPE. In certain circumstances there may be a combination of regmatogen and tractional. The third category is the exudative retinal

detachment associated with the inflammatory process, malignancy. In this type of exudation occurs the accumulation of subretinal fluid which ends in the release of the retinal layer.¹⁻³

Epidemiological data in the United States the incidence of retinal detachment was 12.5 cases per 10,000 per year. Approximately 40-50% of cases occur with myopia risk factor, 30-40% with history of cataract surgery and 10-20% is ocular injury. Cases of trauma occur most at the age of the child and cases with myopia often occur at the age of 25-40 years.^{3,4}

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CASE REPORT

The operative management principle of the retinal detachment is to glue back the loose retinal layer by previously identifying and closing when there is a retinal tear and release of traction from vitreoretina. Actions can be Buckle Sclera, vitrectomy pars plana and pneumatic retinopexy. The consideration of the choice of operative therapy depends on the underlying pathogenesis of each case of retinal detachment.^{4,5}

METHOD

Patient A 58 years old man, with medical record 105776 come to the eye polyclinic on 25 January 2018, with chief Complaint the left eye blurred like a partially covered curtain since 5 days, Since 5 days ago the patient

complained of sudden blurred vision on the left eye. Complaints in without red eyes. Vision is felt like a closed curtain. Complaints are felt after the patient fell in the field while working 8 days ago, Since \pm 6 days ago complained to the left eye floaters (+), photopsia (+). headache (+), Patients never complain of sudden loss of vision before, pain in the eyeball (-). History of trauma (+), visual acuity 6/9 RE, 1/60 LE, intraocular pressure in normal limit, claudy lens nuclear gr III, posterior segment retinal contours of the blood vessels well, tear (+) is directed at 2-3 hours of superior-temporal and fovea reflex (-), B-scan ultrasound of the posterior segment the retinal is not intact, Membran like lesion detachment which attach to optic nerve

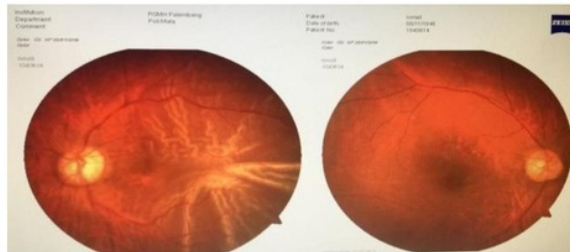


Figure 1: fundus photograph right eye tear (+) is directed at 2-3 hours of superior-temporal and left eye in normal limit



Figure 2 : B-scan ultrasound of the posterior segment pre operative retinal is not intact, Membran like lesion detachment which attach to optic nerve

RESULT

Buckle sclera with cryoretinopexy were performed in rhegmatogenous retinal detachment. The installation of the encircling band surrounds the eyeball under the rectus muscle and the tyre band from 1 to 5 hours through the bottom of the inferior, and lateral, with visual acuity post

operative 2/60, subconjunctival bleeding (+), the fundus photograph retinal attach but the macular reflex is still negative. at 1 month follow up examination fundus photograph and B-scan ultrasound obtained retinal attach, but reflex fovea still negative.

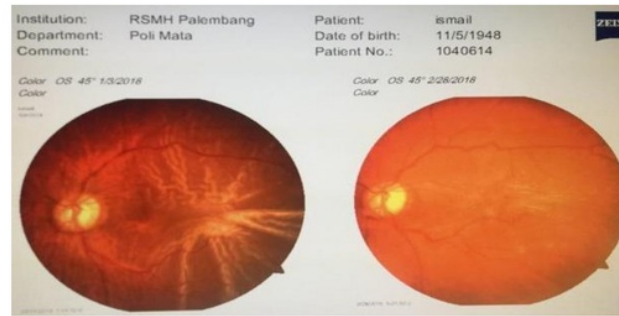


Figure 3 : pre and post operative retinal fundus photograph, post operatif retinal attach but the macular reflex is still negative



Figure 4 : B-scan ultrasound of the posterior segment post operative retinal attach

DISCUSSION

In anamnesa obtained right eye complaints blurred suddenly since 5 days ago, blurred vision felt like closed the complaint curtain felt after the patient fell. Found complaint view like seeing flash of light. in the literature it is mentioned that the typical signs and symptoms of the retina detachment are usually preceded by floaters, flash / photopsia due to mechanical stimuli that occur from vitreoretinal traction that is detached from the retina, narrowed viewing field and blurred vision. According to Johannes Arnoldus, Groningen University, said the risk factor of rhegmatogen retinal detachment highest incidence more in men, the average age with the highest incidence of 55-65 years.^{5,15-18}

An ophthalmologic examination was performed to determine the diagnosis in the viscous patient 1/60 ph (-). Then in the posterior segment of the fundusoscopic examination obtained normal papillary area, no fovea reflex in the macula and obtained a break in the superotemporal retina at the area of 2 and 3 hours.

Diagnostic leads to ablatio retina rhegmatogen due to a break that causes partial accumulation of fluid subretinally, ablation of tracional abnormalities may be excluded in patients with diabetes mellitus, ablation of exudative retina due to malignancy or inflammatory disease whereas in these patients no systemic

abnormalities, malignancies and ocular inflammatory disease. Based on the clinical picture of the posterior segment found detachment area. These fundus photo shots are also adjusted for break locations with Linchoff Rules 2 based on the American Academy of Ophthalmology, diagnostic and advanced management.^{5,6,9,10,15-23}

Scleral buckling technique can be chosen because of the break position found and the retinal loss of 1-2 quadrants. According to Martinez et al, added pars plana vitrectomy, this operative combination is performed to reduce the risk of failure or recurrent retinal ablation and a better prognosis than buckle sclera alone. According to Garcia's article, Arumia et al, reporting the results of this combined surgery provides a successful retinal attached operation of 96%, the risk of recurrent retinal ablation is lower and cryoretinopexy is needed in the area around the retinal break, to prevent the vitreous from entering the retina and attaching the retina to choroid. Use of general anesthesia is done to prevent the occurrence of complications that may occur intraoperatif.^{6, -8,15,20,23}

follow-up assessed is visus progress, intraocular pressure, silicon oil condition (this condition can be seen 6-12 months postoperatively), retina attached or not and also need to assess the optical condition of the patient to assess the optic nerve.^{1,15,16,21, 22}

CASE REPORT

The prognosis in this patient is *quo ad vitam dubia ad bonam*. If the patient presents with ablatio retina rhegmatogen with initial visus 1/60 to 5/60. This is adjusted to the prognosis of patients with post-traumatic retinal post ablatio from 8 days to surgery. Improvement of the visus we expect according to study from Martinez, et al if involving macula then can reach the final visus 6/30.^{8,20,21,23}

CONCLUSION

The rhegmatogen-type retina ablatio is the most common form that can lead to a fullthickness retinal break. In retinal ablatio therapy given depends on the risk factors that accompany buckle sclera with cryoretinopexy is one of the treatment options in the retina ablatio. Combination operative therapy is selected to minimize the complications that can occur. Patients are encouraged to follow-up regularly every month to evaluate postoperative long-term success.

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