HEALTH SERVICES IN BAHRAIN SERIES

Retinal Detachment Surgery in Bahrain Statistical Study

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INTRODUCTION

THIS is a review of our work on the management of retinal seperation during the past two years. This will evolve better understanding of our present situation, efforts to improve our procedures and results in future. Although our experience is only 6 years old, our results are encouraging. Unfortunately our people are unaware that such a service is available in Bahrain and that surgical repair of detachment can be done here as efficiently as in any retinal unit abroad. This may be the reason that only a minority of our patients agree to undergo the operation and many of them are non-Bahrainis. Most of our patients, due to the lack of understanding, demand a guaranteed success and assurance of full visual improvement after surgery which is not possible in all cases even at the best retinal centres in the world. At times a patient has to be operated again if the retina does not get attached from the first surgical interference.

PATIENTS AND METHODS

14 cases of rhagmatogenious retinal detachment were admitted to the eye ward during the period from January 1979 till November 1980 and were operated exclusively by the senior author. This study excludes the following :

a. Cases with silent retinal breaks without retinal detachment in which prophylatic cryotherapy or photocoagulation were performed (3 cases)

b. Patients who refused operation and left the hospital against medical advice or went abroad for management and never came back for follow up (3 cases).

c. Cases which were sent abroad by the Ministry (majority were one-eyed) or went on their own and came back for follow up. This includes :

1. 3 cases of aphakic retinal detachment
2. 2 cases of myopic retinal detachment

All these cases but one, were failure.

Age distribution was as follows :

Age	Male	Female
Over 15 and below 30 years	2	—
Over 30 and below 45 years	7	3
Above 45 and below 60 years	1	1

Duration before the patient sought medical advice was as follows :

Few days (less than one week)	1
Few weeks (less than one month)	10
Few months	3

The associated ocular diseases in our cases were as follows :

Type of ocular disease	Male	Female
Myopia	2	1
Aphakia	3	2
Trauma	3	1
Glaucoma (open angle)	1	—
Cataract	1	1
Corneal scarring	2	3
Vitreous changes	2	2
Vitreous haemorrhage	1	1
R.D. in other eye	1	1

Ten of our cases were male and four were female. Six patients were Bahrainis and four were non-Bahrainis. This latter includes 3 Indians and one Omani.

All cases showed ocular hypotony when first seen and all have a detachment which involve two quardrants or more, i.e. subtotal with macular involvement. All but one cases sent abroad had a recent retinal detachment with macular spared. All aphakic retinal detachment had complicated operations during previous surgery.

Ten of the cases started as upper retinal detachment and four as lower. In seven cases one retinal break was detected. Two or more retinal breaks in different quadrants in the other six cases. In the remaining one case no tear was found. A blind cryopexy was performed in this case on the suspected quadrant.

Pre-operative visual acuity was ranging from perception of light or hand movement to finger counting for 3 — 5 feet (side vision).

All cases were subjected to thorough pre-operative examination with binocular indirect ophthalmoscopy and slit lamp biomicroscopy using Goldman contact lens.

On sealing of all retinal breaks rely the success of repair operation. So their preoperative detection is essential. This required a sustained co-operation from the patient and concentrated efforts by the examiner to thoroughly observe the fundus and detect the responsible retinal breaks. We are handicapped by the problem of incomplete pupillary dilation in our brown eyes which usually do not dilate fully even with the strongest mydriatics. The pupil readily constricts again on exposure to strong light of ophthalmoscope during the examination and surgery. This makes it very difficult to examine the peripheral areas of fundus where most retinal breaks are usually located. Because the constrictor of pupil is not put completely out of action, patients are photophobic and associated blepharospasm make it difficult to force the lids apart.

View of fundus on other hand may be obstructed by opacities in the media which are common finding in our patients. e.g. Corneal leucoma, lenticular opaciter, vitreous haemorrhages etc.

The preoperative examination of fundus may be repeated and prolonged for hours till the surgeon becomes convinced that the detected break or breaks are responsible for the detachment.

Binocular indirect ophthalmoscopy is a time consuming and frustrating procedure. It is worthwhile when a successful reattachment of retina will be the end result. This difficulty was overcome by fundus reexamination on anaesthetized relaxed patient in theatre before the operation using scleral indentation.

All our operative repair was done under general anaesthesia. Monitired cryopexy was used. Siliastic sponges of different sizes soaked with antibiotics were usually used as localised bucked radially or circumferentially depending on the position of the retinal break. Sometimes silicon band No. 20 was used. Silicon band No. 40 was used as a circulage. Its ends were secured together with witzki sheath. Release of subretinal fluid, is done, usually on an area far from the vertex vein near recti muscle, over most elevated part of retinal detachment. Intra vitreal air was utilized in one case. Post operative photocoagulation was needed in another case. Patency of central retinal artery and position of buckle in relation to break is routinely checked. Paracentesis or i.v. diamox is given to decompress the eye if pressure raised. In no case any of rectic was severed.

Our patients were ambulatory on the 3rd post operative day if the retina was flat and a good reaction is seen around the break, which is water tight resting on anterior buckle slope. They are allowed to go home on the 7th or the 10th day.

RESULTS AND DISCUSSIONS

For the purpose of analysis, our study is based as a rule on post operative reattachment of retina and not on visual results. If the retina is attached for a period of 6 months or more, it is considered cure since spontaneous redetachment after that period is very rare.

Follow up period in our cases ranged from more than 4 weeks to a few months.

Anatomical reattachment was achieved post operatively in 12 cases. The failure in 2 cases was due to the development of new tears, failure to detect breaks preoperatively due to hazy media and presence of vitreo-retinal changes which prevent the reattachment of retina.

Visual results were satisfactory in all our successful cases. An aided vision ranging from 2/60 to 6/24 in the first few post operative weeks was achieved. Dramatic improvement in vision was blocked by opacities of media, amblyopia, macular changes due to prolonged detachment or trauma and chorio retinal degeneration as in myopia.

Retina was attached in 8 out of 10 Bahrainis and all 4 non-Bahrainis.

SUMMARY

Of the 14 cases of rhagmatogenious retinal detachment admitted to the eye ward during the past two years, 12 cases achieved anatomical reattachment. Difficulties encountered during preoperative fundal examination and causes of failure were mentioned.

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H.E. the Minister, Dr. Ali Fakhro, chairs the 10th Conference of The Arab Gulf Health Ministers held in Bahrain from January 3 to 5, 1981