

Pattern of Vitreoretinal Diseases in Patients of Kangra Valley

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Background: This study may be the foundation pillar for future planning and need for set up of vitreoretinal care services in Dr. Rajendra Prasad Government Medical College, Kangra at Tanda, India.

Aims and Objectives: To determine the pattern of vitreoretinal diseases in patients attending the retina clinic of Dr. Rajendra Prasad Government Medical College, Kangra, Tanda, India.

Materials and Methods : A retrospective analysis of the patients attending the retina clinic over a period of one year 2015 to 2016 was carried out from the out patient register. The patients with a very hazy media and posterior uveitis were excluded from the study.

Abstract Statistical Analysis: The significance was determined using percentage.

Results : In our study out of 424 cases, 237 (55.96%) were males and 187 (44.10%) were females. In our first age group less than equal to 40 years, out of 122 patients there were 72 males (59.01%) and 50 (40.98%) females and diabetic retinopathy was the commonest disorder in them followed by retinal detachment. In the second age group more than 40 years there were 302 patients including, 165 (54.63%) males and 137 (45.36%) females. Age related macular degeneration (ARMD) was the commonest disorder in them followed by diabetic retinopathy.

Conclusion: With increase in age there is increase in number of retinal disorders. Out of the total diseases Diabetic retinopathy was the commonest retinal disorder (27.59%) and there was a male preponderance to it. The second most common retinal disorder was ARMD (20.04%), followed by retinal detachment (11.55%).

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Introduction

The causes of blindness and the pattern of eye diseases differ in developing and developed countries and often in communities nearly eighty percent of the considerable burden of blindness in India is attributed to curable causes, such as cataracts and refractive errors.¹

A study of the pattern of ocular diseases is very important because while some eye conditions are just causes of ocular morbidity others invariably lead to blindness.²

A recent study³ found that retinal disorders are an important cause of blindness in India. It is estimated that there will be 244 million people (14.9% of the population) 65 years and older by 2050 compared with 42 million (4.5% of the population) in 1995.⁴ This shift in demographics is likely to be accompanied by a shift in the prevalence of retinal diseases as major causes of blindness in India. Hence the current study was done keeping the above points in consideration to evaluate the pattern of Vitreoretinal disorders in Dr. Rajendra Prasad Government Medical College, Kangra, Tanda, India (RPGMC) Tanda.

Materials And Methods

The current study was conducted in the Department of Ophthalmology of Dr. Rajendra Prasad Government Medical College, Kangra at Tanda, India. A total of 439 patients were analysed over a period of one year i.e 2015 to 2016. All these patients were subjected to a detailed dilated fundus evaluation and bscan, oct, fundus photographs were done accordingly. A retrospective analysis of the patients attending the retina clinic was carried out from the out

Table 1: Age wise distribution of Patients Retinal disorders

Age	Male	Female	Total
<40 Years	72 (59.01%)	50 (40.98%)	122
>40 Years	165 (54.63%)	137 (45.36%)	302
TOTAL	237(55.9%)	187(44.10%)	424

patient register. The patients with a very hazy media and posterior uveitis were excluded from the study.

The data was analysed and significance was determined using percentage.

Approval from the institutional ethics committee Dr. RPGMC Tanda was taken prior to conducting the study.

Result

A retrospective analysis of the patients attending retina clinic of Dr. RPGMC TANDA was done over a period of one year (2015 to 2016) and these were the results.

In our study out of 424 cases, 237 (55.96%) were males and 187 (44.10%) were females (Table 1).

The patients were divided into two groups. In our first age group less than equal to 40 years, out of 122 patients there were 72 males (59.01%) and 50 (40.98%) females and diabetic retinopathy was the commonest disorder in them followed by retinal detachment (Table 2).

In the second age group more than 40 years there were 302 patients including, 165 (55.96%) males and 137 (45.36%) females. There was a male preponderance in our study. ARMD was the commonest disorder in them followed by

Table 2: Number wise distribution of Retinal disorder in less than 40 years of age.

	Disease	Male	Female	Total
1.	Diabetic Retinopathy	25 (61%)	16 (39%)	41
2.	Retinal Detachment	11 (55%)	9 (45%)	20
3.	Coloboma	7 (43.75%)	9 (56.25%)	16
4.	Central Serous Chorioretinopathy	9 (64.28%)	5 (35.71%)	14
5.	Vitreous Disorders	7 (63.63%)	4 (36.36%)	11
6.	Retinal Break	4 (57.14%)	3 (42.85%)	7
7.	Retinitis Pigmentosa	3 (60%)	2 (40%)	5
8.	Vascular Occlusions	3 (75%)	1 (25%)	4
9.	Macular Hole	3 (75%)	1 (25%)	4
	Total	72	50	122

Table 3: Number Wise Distribution of Retinal Disorder in Greater than 40 Years of Age

	Disease	Male	Female	Total
1.	Age related macular degeneration	40 (47.05%)	45 (52.94%)	85
2.	Diabetic Retinopathy	51 (67.10%)	25 (32.84%)	76
3.	Vascular Occlusions	20 (55.55%)	16 (44.44%)	36
4.	Retinal Detachment	17 (58.62%)	12 (41.37%)	29
5.	Hypertensive Retinopathy	12 (54.54%)	10 (45.45%)	22
6.	Macular Hole	7 (35%)	13 (65%)	20
7.	Vitreous disorders	9 (47.36%)	10 (52.63%)	19
8.	CS CR	3 (60%)	2 (40%)	5
9.	Retinal Break	3 (60%)	2 (40%)	5
10.	Retinitis Pigmentosa	2 (50%)	2 (50%)	4
11.	Optic Pit	1 (100%)		1
	Total	165	137	302

diabetic retinopathy. With increase in age there is increase in number of retinal disorders (Table 3).

Out of the total diseases, Diabetic retinopathy was the commonest retinal disorder (27.59%) and there was a male preponderance to it. The second most common retinal disorder was ARMD (20.04%), followed by retinal detachment (11.55%). The other disorders were: Vascular occlusions (9.43%), Vitreous disorders (7.07%), Macular Hole (5.66%), Hypertensive Retinopathy (5.18%), Central serous chorioretinopathy (CSCR) (4.48%), Coloboma (3.77%), Retinal Break(2.83%), Retinitis Pigmentosa (2.12%), Optic Pit (0.23%) (Table 4).

Discussion

These results are comparable with the study conducted by The Aravind comprehensive study in which prevalence of diabetic retinopathy was 0.5% and ARMD was 2.7% in patients of 40 yrs and older age. Another study in Karachi reported diabetic retinopathy as most common cause

Table 4: Disease wise distribution of Patients

	Disease	Male	Female	Total
1.	Diabetic Retinopathy	76 (64.95%)	41 (35.04%)	117 (27.59%)
2.	Age related macular Degeneration	40 (47.05%)	45 (52.94%)	85 (20.04%)
3.	Retinal Detachment	28 (57.14%)	21 (42.85%)	49 (11.55%)
4.	Vascular occlusions	23 (57.5%)	17 (42.5%)	40 (9.43%)
5.	Vitreous disorders	16 (53.33%)	14 (46.66%)	30 (7.07%)
6.	Macular Hole	10 (41.66%)	14 (58.33%)	24 (5.66%)
7.	Hypertensive Retinopathy	12 (54.54%)	10 (45.45%)	22 (5.18%)
8.	CSCR	12 (63.15%)	7 (36.84%)	19 (4.48%)
9.	Coloboma	7 (43.75%)	9 (56.25%)	16 (3.77%)
10.	Retinal Break	7 (58.33%)	5 (41.66%)	12 (2.83%)
11.	Retinitis Pigmentosa	5 (55.55%)	4 (44.44%)	9 (2.12%)
12.	Optic Pit	1 (100%)		1 (0.23%)

(39.8%) for registration in retina clinic. A study conducted in Bhaktapur reported Armd as the most common retinal disorder with a prevalence of 1.50%. They also reported that increasing age is associated with a higher prevalence of retinal disorder. Study by TS Oluleye et al and Onakpoya et al also reported Armd as the commonest disease which is consistent with our study. Another study by Almal khan et al reported diabetic retinal conditions as the most common cause (39.8%) which is again consistent with our study.

Conclusion

Diabetic retinopathy was the commonest retinal disorder in the patients attending the retina clinic of Dr. R.P.G.M.C., Tanda. With increase in age there is increase in Diabetic Retinopathy as it is linked with duration of diabetes. It was consistent with our results which showed increase in diabetic retinopathy in patients more than 40 years of age and also with a male preponderance.

ARMD was the second most common retinal disorder however it was more common in patients above 40 years of age.

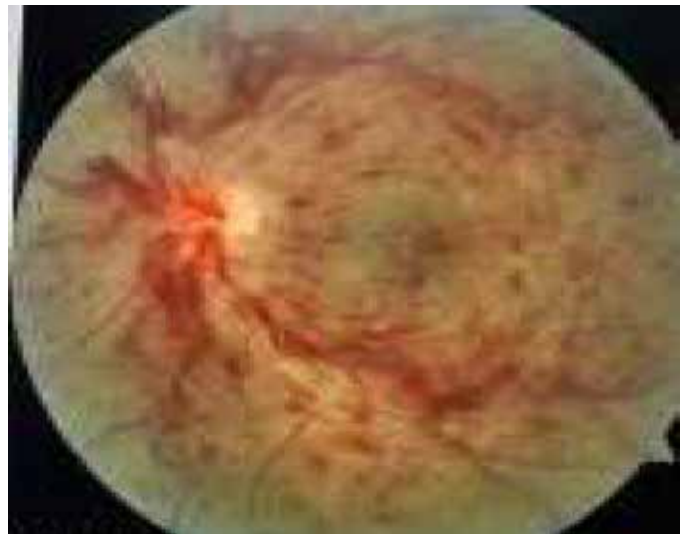
The limitations of the current study are that the sample size was small and further analysis of various diseases could not be done.

However one finding of the study (retinal detachment as the second most common retinal disorder in patients less than 40 years of age) was not consistent with previous studies.

This is a very alarming finding. Most of these patients came for a second opinion. Majority of these patients cannot afford treatment and eventually become blind. This itself highlights the need for an affordable and comprehensive retina care services. All this data may help in future planning and need of retina care services. Early detection and treatment



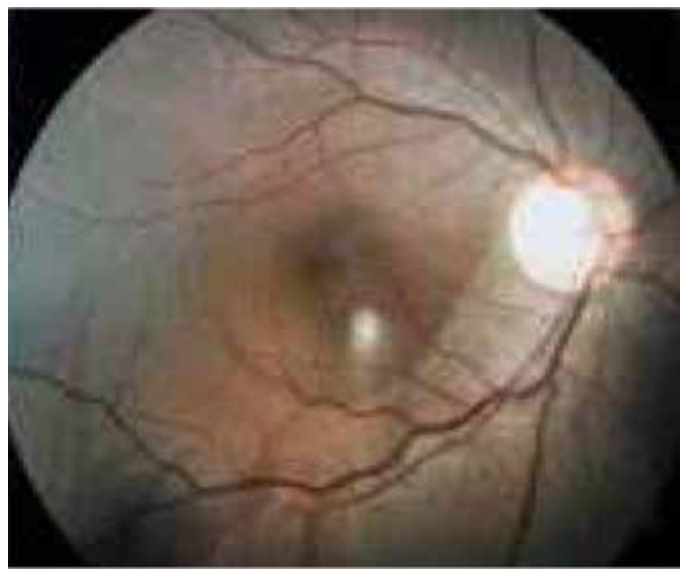
SEVERE NPDR WITH CSME



CENTRAL RETINAL VEIN OCCLUSION (CRVO)



DIABETIC TRD

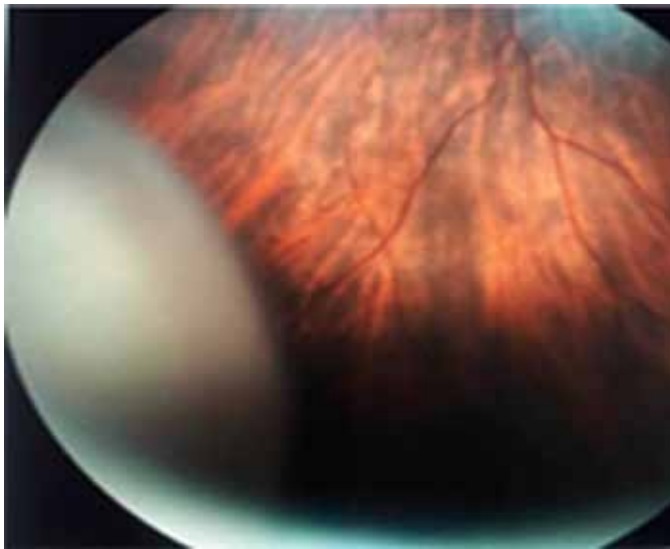


CSCR

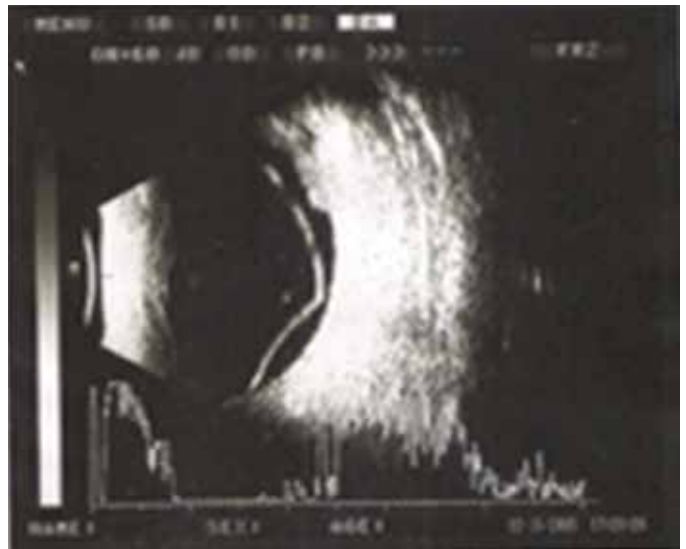


RETINAL BREAK WITH RETINAL DETACHMENT





LENS DISLOCATION IN VITREOUS CAVITY



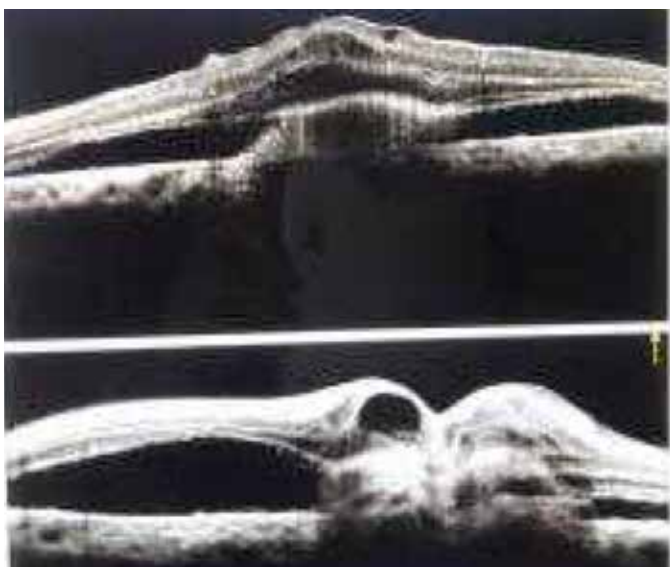
RETINAL DETACHMENT



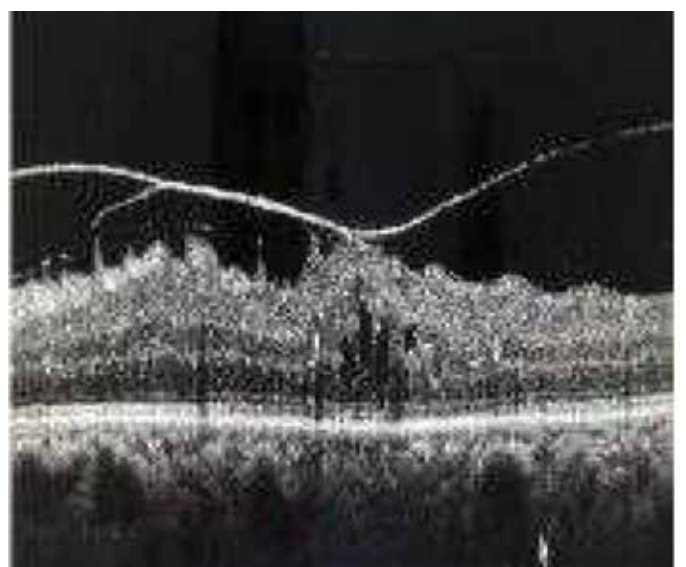
SUB RETINAL MASS



CHOROIDAL COLOBOMA



DISCIFORM SCAR



VITREOMACULAR TRACTION (VMT)

of various retinal disorders can help reduce significant long term visual impairment and ocular morbidity.

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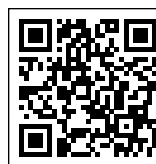
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