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Pattern of Retinitis Pigmentosa in Manipur among the Patients Attending Retina Clinic Regional Institute of Medical Sciences, Imphal, Manipur, India

Vipin Singh[1], Yumnam Chingsuingamba[2], ArchanaPawar[3]

Abstract: ***Purpose: To evaluate the Frequency and Pattern of Retinitis pigmentosa in Retina Clinic of a Tertiary Care Hospital Regional Institute of Medical Sciences, Imphal. Introduction:Retinitis pigmentosa (RP) comprises a group of hereditary eye diseases characterized by progressive degeneration of retinal photoreceptors that may result in progressive visual loss leading to legal or total blindness. Materials and methods: Data was collected for all the patients diagnosed with retinitis pigmentosa. Complete ocular examination and Fundus photographs were taken. Results: of 749 patients attending retina clinic 67 cases were diagnosed with RP over a period of 3 years. Majority was males (68.65%). 28 were typical RP, 4 inverse RP and 1 case of retinitis punctataalbescens. Majority of the cases presented at late stage, of the 134 eyes 61 are socially blind. Conclusion: Rehabilitation services need to focused for improving social productivity. A thorough genetic pedigree, often with the aid of a genetic counselor, is essential in determining risk of future generations acquiring the disease.***

Keywords: Retinitis pigmentosa, Optic atrophy, Cataract, Glaucoma, Visual rehabilitation.

1. Introduction

Retinitis pigmentosa (RP) is the most common of inherited retinal dystrophies, with a prevalence of around 1:4000 individuals[(1)]. It usually involves both eyes. Most cases are familial, inherited in a variety of ways, including dominant, recessive, and sex-linked recessive. Some cases are sporadic and lack a family history of the disease[(2)]. RP characterized by progressive degeneration of retinal photoreceptors predominantly involving the peripheral retina that may result in severe visual loss leading to legal blindness or total blindness. Manifestations include poor night vision (nyctolopia) and constriction of peripheral vision (visual field loss) which is progressive and usually does not reduce central vision (tunnel vision) until late in the disease course. Typical RP is described as a rod-cone dystrophy, photoreceptor rods being earlier and more affected than conesbecause rods are concentrated in the outer portions of the retina and are triggered by dim light[(3-6)]. Currently, there is no proven therapy that stops the evolution of the disease or restores the vision. Newer researches suggest that it may be possible to slow disease progression. The therapeutic approach is restricted to slowing down the degenerative process by sunlight protection, vitaminotherapy (vit-A and E) [(7)] and treating the complications (cataract and macular edema) helping patients to cope with the social and psychological impact of blindness. However, new therapeutic strategies are emerging from intensive research like gene therapy, neuroprotection and retinal implants[(8)].

2. Materials and methods

Data was collected from all the patients diagnosed with retinitis pigmentosa attending retina clinic. Detailed history of present illness along with family history was evaluated followed by meticulous ocular examination was done. Visual acuity was recorded using Snellen's chart. Posterior segment evaluated using direct ophthalmoscopy, indirect ophthalmoscopy and slit lamp biomicroscopy. Visual fields were tested using Humphrey visual field analyzer 24-2 or 10-2 program for macular dysfunction. Electro- retinography and fundus photographs using fundus camera in selected patients were taken. Data was tabulated including variables such as Sex, religion, BCVA (best corrected visual acuity) and presence or absence of complications.

3. Results & Discussion

Of the 749 patients attending retina clinic 67 cases were diagnosed with RP over a period of 3 years with mean age of presentation as 33.45 years. Majority were males (68.65%) (Figure-1). Various presentations seen included 45 cases (67.16%) of typical RP, 17 (25.37%) inverse RP, 3 retinitispunctataal bescens and 2 case of sectoral RP (Figure-3). Of the 134 eyes 61 had <3/60 vision (Figure-4).

Majority (41.8%) were Hindus (Figure-2). However most of the complicated RP (44.11%) were seen in Muslims (Figure-5), which shows aggressive nature of retinitis pigmentosa in this population. Such a finding may be because of increased occurrence of consanguineous marriages.

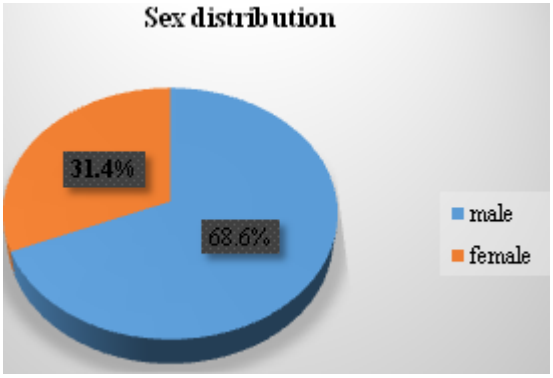


Figure 1

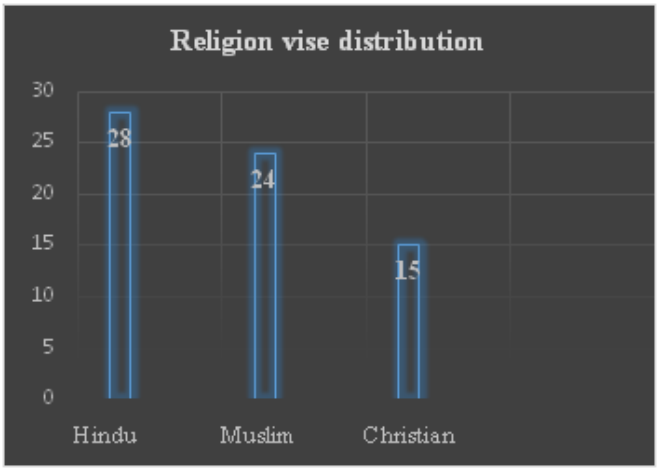


Figure 2

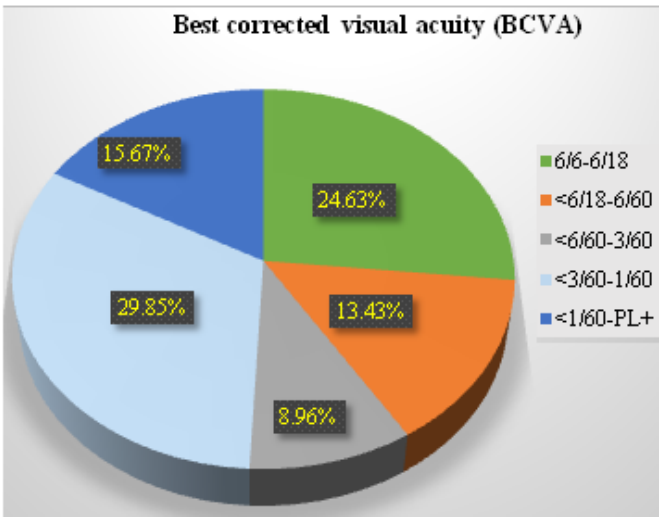


Figure 4

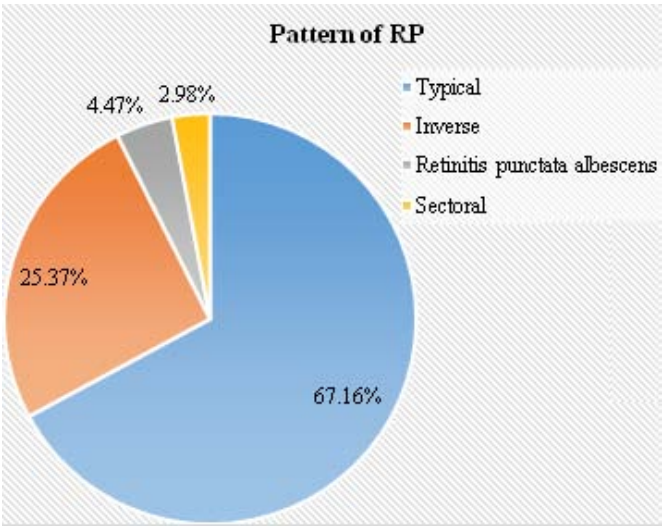
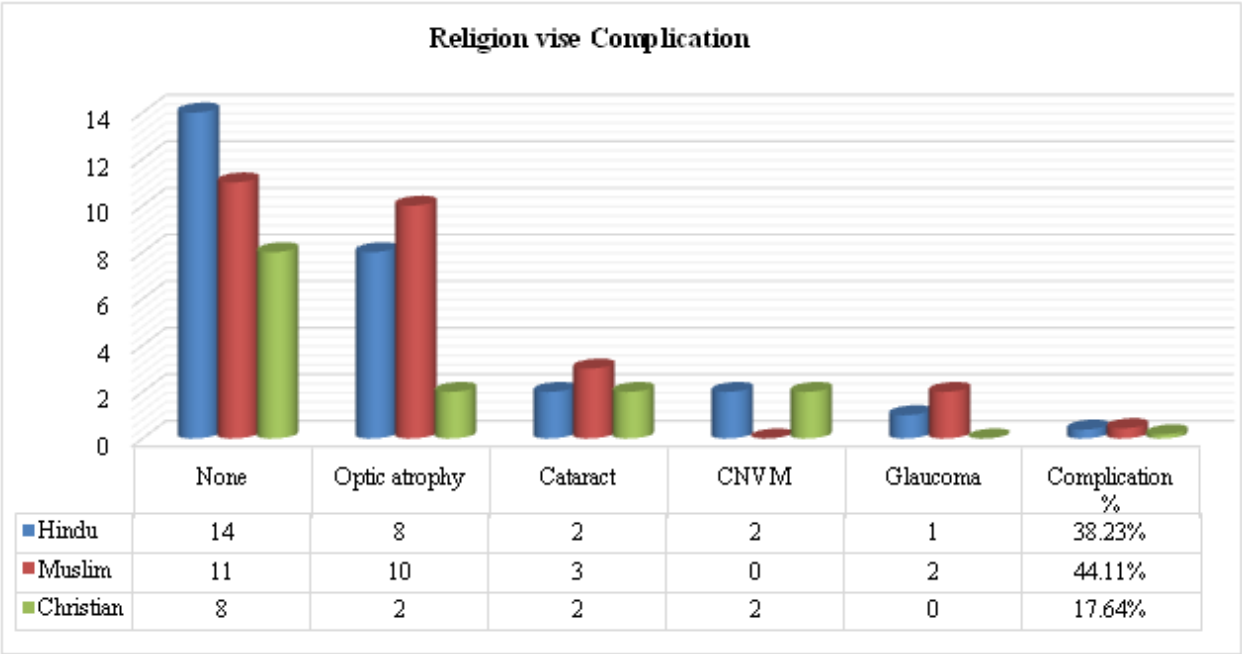


Figure 3



	None	Optic atrophy	Cataract	CNVM	Glaucoma	Complication %
Hindu	14	8	2	2	1	38.23%
Muslim	11	10	3	0	2	44.11%
Christian	8	2	2	2	0	17.64%

Figure 5

4. Conclusion

Most of the cases presented here in very advanced or complicated stage, so these patients should be trained and visually rehabilitated so that their normal routine life activity will not be hampered and their level of frustration will be reduced. Visual Rehabilitation services need to focused for improving social productivity. Certain subgroups of populations in Manipur are known to have a relatively high level of consanguineous marriages, leading to a relatively high frequency of this genetic diseases particularly autosomal recessive form. So efforts should be made to create awareness and provide Genetic counseling in critical populations in order to reduce the disease incidence in long run.

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Authors Profile

Dr. Vipin Kumar Singh passed MBBS in 2010 from S.N.M.C. Agra, UP, India. He is Post-graduation trainee, Department of Ophthalmology, Regional Institute of Medical Sciences, Imphal, Manipur, India

Dr. Archana Anand Pawar is Post-graduation trainee, Department of Ophthalmology, Regional Institute of Medical Sciences, Imphal, Manipur, India

Dr. Y. Chingsuingamba Meitei is Associate Professor, Department of Ophthalmology Regional Institute of Medical Sciences, Imphal, Manipur, India