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Original Article

Assessment of vitreo- retinal diseases

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ABSTRACT:

Background: Vitreo-retinal disorders refer to a group of eye conditions that affect the retina, the thin layer of tissue located at the back of the eye, and the vitreous, a gel-like substance that fills the space between the lens and the retina. The present study was conducted to assess vitreo- retinal diseases. **Materials & Methods:** 60 patients of vitreous retinal diseases of both genders were selected. Best corrected visual acuity (BCVA), hypertensive retinopathy (HTR), diabetic retinopathy (DR) and age-related macular degeneration (AMD) was recorded. **Results:** Out of 60, males were 36 and females were 24. The mode of injury was road traffic accident in 20, fall from height in 12, assault/fight in 8, electric wire in 15 and others in 5. Common vitreo- retinal diseases were retinal detachment in 12, hypertensive retinopathy in 8, diabetes retinopathy in 20, retinal vein occlusion in 5, macular hole in 4, optic nerve involvement in 6 and vitreous haemorrhage in 5 cases. The difference was significant (P< 0.05). **Conclusion:** Retinal detachment, hypertensive retinopathy, diabetic retinopathy, retinal vein blockage, macular hole, optic nerve involvement, and vitreous hemorrhage were prevalent vitreo-retinopathies.

Key words: macular hole, Retinal detachment, vitreo- retinal diseases

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INTRODUCTION

Vitreo-retinal disorders refer to a group of eye conditions that affect the retina, the thin layer of tissue located at the back of the eye, and the vitreous, a gel-like substance that fills the space between the lens and the retina. These disorders can vary widely in terms of their causes, symptoms, and treatments.Retinal diseases are the main cause of vision impairment in wealthy countries.[1] Retinal diseases received little attention in initiatives aimed at preventing blindness since it was believed that they were a rare cause of blindness in developing countries. In undeveloped countries, glaucoma, cataracts, nutritional blindness, and corneal scarring are the primary preventable causes of blindness. Many intervention programs, like the distribution of vitamin A and the availability of inexpensive technology that has increased the number of cataract surgeries, have focused on eliminating these disorders. Food fortification has also been implemented to prevent vitamin A deficiency-induced corneal scarring.[2,3]

Retinal abnormalities are frequently associated with underlying illnesses, such as diabetes mellitus and hypertension.[4] In addition, there was an 8.3% rise in the prevalence of hypertension over the preceding five years.[5] Retinal abnormalities are a major contributor to visual impairment and ocular morbidity; hospital prevalence rates for these conditions have been found to range from 4.5% to 13.0%. Vitreo-retinal disorders have been identified as a significant public health burden on eye health in earlier reports on the causes of impaired vision from hospital-based investigations and general population surveys.[6]The present study was conducted to assess vitreo- retinal diseases.

MATERIALS & METHODS

The present study comprised of 60 patients of vitreous retinal diseases of both genders. Al enrolled patients gave their consent to participate in the study.

Data such as name, age, gender etc. was recorded. A careful eye examination was carried out by an expert eye surgeon. Best corrected visual acuity (BCVA) at presentation was measured using a Snellen chart. The funduscopic findings were confirmed by binocular indirect ophthalmoscope. Hypertensive retinopathy (HTR), diabetic retinopathy (DR) and age-related macular degeneration (AMD) was recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 60		
Gender	**Males**	**Females**
Number	36	24

Table I shows that out of 60, males were 36 and females were 24.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Mode of injury	Road traffic accident	20	0.05
	Fall from height	12	
	Assault/fight	8	
	Electric wire	15	
	Others	5	
vitreo- retinal diseases	Retinal detachment	12	0.04
	Hypertensive retinopathy	8	
	Diabetes retinopathy	20	
	Retinal vein occlusion	5	
	Macular hole	4	
	Optic nerve involvement	6	
	Vitreous haemorrhage	5	

Table II shows that mode of injury was road traffic accident in 20, fall from height in 12, assault/fight in 8, electric wire in 15 and others in 5. Common vitreo- retinal diseases were retinal detachment in 12, hypertensive retinopathy in 8, diabetes retinopathyin 20, retinal vein occlusion in 5, macular hole in 4, optic nerve involvementin 6 and vitreous haemorrhage in 5 cases. The difference was significant (P< 0.05).

DISCUSSION

Worldwide, the prevalence of vitreo-retinal diseases has significantly increased.[7] Due to longer life expectancies and greater use of cataract surgery, retinal diseasesparticularly those brought on by diabetes and AMDare becoming more common causes of blindness and visual impairment.[8,9] This presumption has grown stronger despite the work and expense expended in obtaining expensive technology and training qualified personnel for the retinal subspecialty. This is also due to the inability to provide evidence to support the treatment outcomes of retinal disease.[10]Vitreo-retinal illnesses have been identified as the primary cause of impaired vision in the general public's eye health burden by previous reports from hospital-based research and general population surveys.[11]The present study was conducted to assess vitreo- retinal diseases.

We found that out of 60, males were 36 and females were 24. Eze et al[12]determined the rate and pattern of vitreo-retinal diseases at a tertiary eye care center.Of the 8,239 new patients reported during the period, 326 subjects (males- 59.3%; females- 40.7%; sex ratio = 1.1:1) aged 49.3 ± 16.8 years (range 3-82 years) had vitreo-retinal disease. The rate of vitreo-retinal disease was 3.9%. The rate was higher in subjects above 40 years old (P < 0.001), but did not differ between sexes (P = 0.469). Diabetic retinopathy (24.9%), hypertensive retinopathy (13.3%), and age-related macular degeneration (10.7%) were the leading vitreo-retinal diseases. Blindness from vitreo-retinal disease was bilateral in 6.1% of subjects and unilateral in 17.5% of subjects. The common co-morbidities were ocular conditions such as refractive error (19.8%), cataract (14.2%), and glaucoma (10.4%); and systemic conditions such as diabetes mellitus (14.6%) and hypertension (13.2%).The rate of vitreo-retinal diseases among new ophthalmic outpatients was 3.9%. Retinal vascular disorders and age-related maculopathy are the leading retinal diseases. At UNTH, resource needs for vitreo-retinal care are urgent including retinal photography/angiography, laser photocoagulation, intra-vitreal pharmacotherapy, and vitreo-retinal surgery.

We found that mode of injury was road traffic accident in 20, fall from height in 12, assault/fight in 8, electric wire in 15 and others in 5. Common vitreo-retinal diseases were retinal detachment in 12, hypertensive retinopathy in 8, diabetes retinopathy in 20, retinal vein occlusion in 5, macular hole in 4, optic nerve involvement in 6 and vitreous haemorrhage in 5 cases. Cannon et al[13] in the study the experience of 55 consecutive individuals undergoing outpatient vitreoretinal surgery was evaluated. Objective variables, including preoperative and intraoperative information, subjective postoperative pain, and discomfort were measured with a previously validated 100 mm visual analogue scale. Patients also ranked the overall experience. Average pain and discomfort scores in the recovery room were 21.8 and 22.6 and overnight were 26-7 and 30.4 (scale 0 to 100), respectively. Eighty- eight per cent of subjects were satisfied with the experience. Elevated pain and discomfort scores were statistically correlated with scleral buckling, prolonged surgical or recovery room time, requirement for parenteral pain medications, and

high intraocular pressure on the first postoperative visit. None of the patients needed further hospital treatment. This study suggests that vitreoretinal surgery in an appropriately selected population does not require routine inpatient care.

CONCLUSION

Authors found that retinal detachment, hypertensive retinopathy, diabetic retinopathy, retinal vein blockage, macular hole, optic nerve involvement, and vitreous hemorrhage were prevalent vitreo-retinopathies.

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