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Original Article

Analysis of 400 cases of posterior segment diseases visiting retina clinic of Nepal eye hospital

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Abstract

Objective: To determine the disease pattern of 400 patients attending Nepal Eye Hospital for strategic planning. **Materials and methods**: A retrospective hospital based analysis of 400 cases visiting Retina Clinic of Nepal Eye Hospital (NEH) over a period of one year was carried out in order to know the disease pattern for planning purpose. **Results**: Males slightly outnumbered females (58% versus 42%). The diseases were more common in age group 50 to 59 years. Diabetes mellitus with or without retinopathy was the commonest cause (20.25 %) for attendance in retina clinic followed by hypertensive retinopathy and venous occlusive disorders.

Keywords: Posterior segment disease pattern, diabetic retinopathy, hypertension, venous occlusive disease.

Unlike the affections in anterior segment of the eye, the diseases affecting retina are mostly irreversible and often sight threatening. The set up for their evaluation and management especially surgical is expensive and for average Nepalese population the treatment is not affordable unless subsidized by the hospital.

The 1981 Nepal Blindness Survey estimated that there were 117,623 blind people in Nepal [1]. The retinal diseases were found to be an important cause accounting for 3.3% of blindness, the first cause being cataract (66.8%)[1].

The recent data on magnitude of problems related to posterior segment is not available however the impression based on hospital practice is that the problem is on rise.

Materials and methods

It is a retrospective study done in Nepal Eye Hospital in the year 2003.Of the 1125 patients attending retina clinic of NEH from March2002 to April 2003, 400 patients were taken as the sample population. The data was taken from the hospital records and were analyzed to determine their age, sex distribution and diagnosis. All patients underwent visual acuity, refraction, slit lamp examination and pupil dilatation for detailed fundus evaluation with binocular indirect ophthalmoscope and slit lamp using 20 D and 78 D lenses respectively.

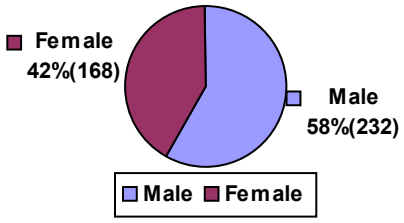
Objective

The objective of this study was to determine the disease pattern of 400 patients attending retina clinic of Nepal Eye Hospital for strategic planning.

Results

The following diagram shows the age and sex distribution of the patients. The following diagram shows the occurrence of posterior segment disease in different age groups.

Fig 1. Distribution of patients having posterior segment diseases by Sex



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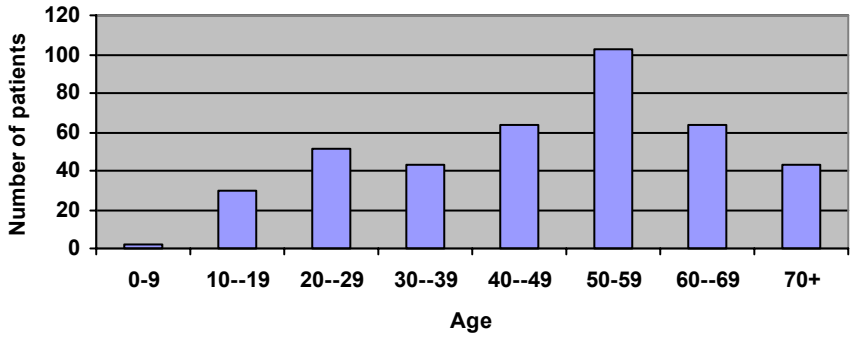
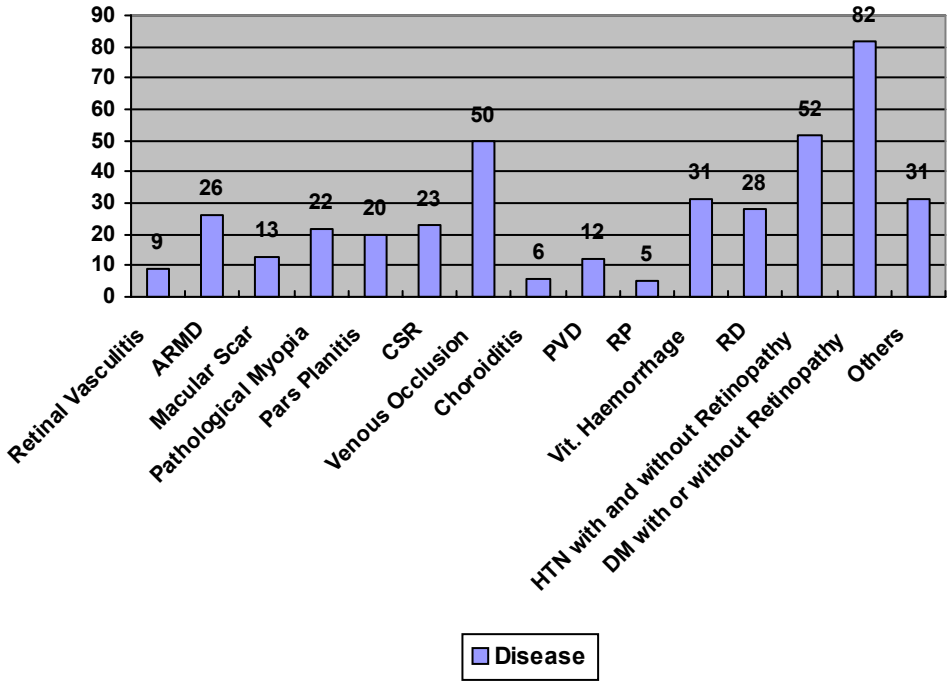
It appeared that the affections are more common in 50 to 59 years age group and least common before the age of 10 years.

Fig 2. Distribution of patients having posterior segment diseases by age group



The following diagram shows the frequency of diseases.

Fig 3. Distribution of patients having posterior segment diseases by age group



It appeared that diabetes with or without retinopathy was the commonest cause for attendance in retina clinic followed by hypertension and venous occlusive disorders. The following diagram shows the pattern of diabetic retinopathy. It appeared that 16% of referrals had no evidence of retinopathy and a significant proportion of retinopathy had maculopathy.

The following diagram shows the retinal complications of hypertension. Venous occlusion was found to be very common in hypertensive patients.

Fig 4. Distribution of Diabetic Patients

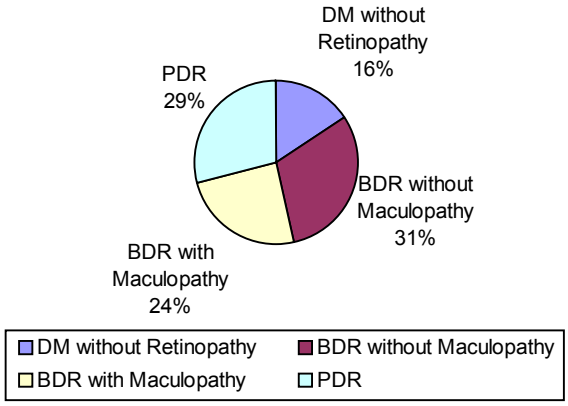
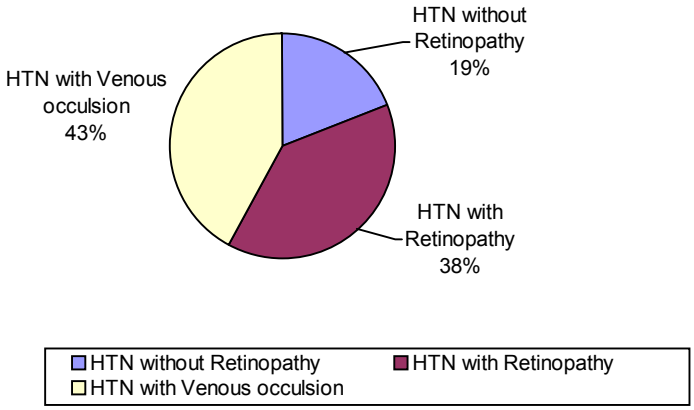
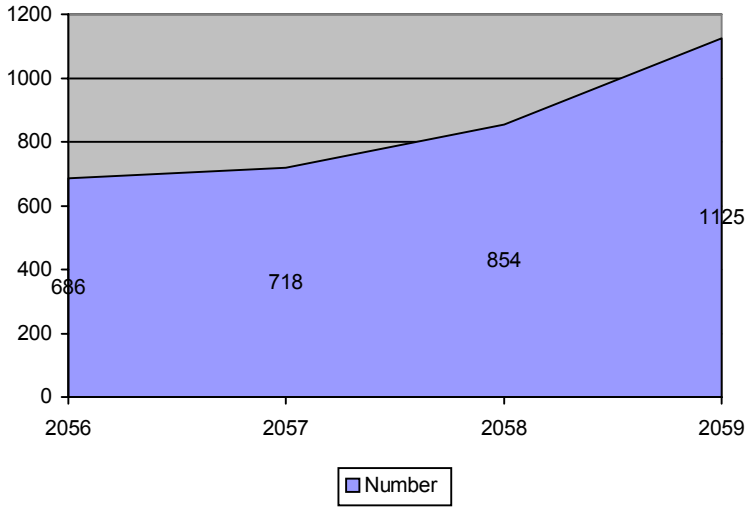


Fig 5: Distribution of Hypertensive Patients



The following diagram shows the increasing trends of posterior segment patients attending the retina clinic each year.

Fig 6. Number of posterior segment cases seen in 4 successive years in NEH



Discussion

Since the study was aimed to find out the age, sex and diagnostic varieties in order to assess needs for the strategic planning to upgrade vitreo-retinal service at NEH, other demographic and therapeutic details were not included.

Nepal Blindness survey done in the year 1981 showed that posterior segment diseases were 3.3% of the ophthalmic diseases. However, the detailed breakdown of the diseases was not available for comparable study[1].

The retinal disease pattern noted at NEH is comparable to those noted at other institutions of the country [2,3,4]. It is noteworthy that diabetic eye diseases are emerging as a challenge and hence preparedness to tackle all kinds of diabetic eye problems including the ones needing complex vitreo-retinal surgical procedures have become essential.

Almost one fourth of the people 20 years and above in urban areas of Nepal showed diabetic tendency. Almost one third of the people 40 years and above in urban areas in Nepal should diabetic tendency [5].

Ocular involvement due to diabetic is a common occurrence, which will lead to visual impairment or permanent visual loss. Therefore diabetic patients should be timely screened, evaluated and treated.

One of the on- going study on urban population in Kathmandu valley showed that more than 50% of the diabetic patients are not aware of the ocular complication of diabetic mellitus [6]. Therefore the need for awareness among the general population is recommended.

Karki K. J. D. noted 63.57% of retinopathy in 302 hypertensive subjects in his study, 38% had retinopathy and 43% had venous occlusion [7].Our study showed 38% hypertension with retinopathy and 41% hypertensive retinopathy with venous occlusion.

Retinal venous occlusion is the common complication of hypertension and diabetes. Various types of retinal venous occlusion have been encountered which may lead to permanent visual impairment. Therefore, further study in this aspect would be of great help in preventing visual loss.

It appears that in spite of proliferation of various levels of posterior segment service facilities within the country the number of attendance in retina clinic at NEH is on rise.

This also justifies additional investments to meet the service demands.

Conclusion

Diabetic and venous occlusive diseases were noted as the commonest retinal problem.

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