Early Diagnosis and Misdiagnosis of Glaucoma

G SABIR
Department of Ophthalmology, Sheikh Zayed Hospital, Rahim Yar Khan
Correspondence to Dr. Ghulam Sabir, Chief Consultant Ophthalmologist,

Aim: To recognize and draw a line between glaucomatous and non glaucomatous patients at very early stage. **Objects:** Such silent dangerous ocular problem must be recognized and treated at very initial stage to avoid subsequent complications. **Diagnosis:** History and all the parameters including intraocular pressure, vision, visual fields and fundus examination were evaluated for diagnosis. Method of study: The study was done at General Hospital and Services Hospital Lahore from 1987 to early 1991. All the patients over the age of 40 year whether coming for first time or already on antiglaucoma treatment were evaluated thoroughly. Patients were examined by senior colleagues also. **Results:** Total 180 patients were included in study, 120 males 60 females. They were divided into four groups. Group I and II were diagnosed early and included 120 patients with no complications. Group-III and IV were misdiagnosed and included 60 patients. **Discussion** Until and unless, special care is taken to focus on the diagnosis, it is usually missed with many complications. It is only the casual behaviour of treating physician who considers the patient's complaint lightly and examines them superficially. **Conclusion:** Although misdiagnosed cases are relatively less than truly misdiagnosed cases of glaucoma yet they form an important fraction of patients who may go blind within coming years. It is therefore necessary to diagnose such patients at very early stage. The surgeon should take special interest to diagnose such patients. One should not hesitate to consult senior colleagues in doubtful cases. Proper counseling for non cooperative patients is very necessary.
Key words: Glaucoma, misdiagnosis, early diagnosis

Primary open angle glaucoma is chronic, painless, bilateral ocular condition with progressive field and visual loss. It is thief in night which silently robs one, of the eyesight when it strikes[1]. By the time a visual field defect is evident 50% of retinal ganglion cells may be lost[2].

Aim of study:

Aim of study is to recognize and draw a line between glaucomatous and non glaucomatous patients at very early stage. Otherwise there is every possibility to unnecessary treat the non glaucomatous patients and glaucomatous patients suffer from visual damage without treatment. Both of these situations can cause visual, economical, social and psychological disturbances in patients. One study shows that 15% patients feel depressed, 55% feel disturbed, 30% complain of feeling of unwell, while 10% specifically mentioned of side effects[3].

Material and methods:

Every patient over the age of 40 years who presented either with complaints of pain, heaviness, visual disturbance on eye or was on antiglaucoma treatment was included in study. Patients who were already operated upon for glaucoma or cataract were excluded. History regarding myopia, diabetes, trauma, steroid drops and previous treatment of glaucoma was evaluated. Family history was specifically asked as it increase the risk of glaucoma from 15-20%[4]. Then visual acuity and intraocular pressure with applanation and schiotz tonometer was recorded. Slit lamp examination was done to exclude secondary glaucoma. Fundoscopy of every patient and visual fields with Goldman perimeter was done. Treatment was stopped for one week and patients examined afterwards[5]. In doubtful cases phasing and water drinking test was done. Patients were asked to revisit every six month. Reasonable diagnosis was reached in many cases.

Results:

Total of 180 patients were included in study, 120 males and 60 females. These were divided into four groups. Group I included the patients who were diagnosed non glaucomatous and remained so for two year of follow up. Group-II included patients who were diagnosed glaucomatous and were on anti-glaucoma treatment and remained so throughout follow up. Group-III patients were already on anti-glaucoma treatment but were after detailed examination labeled non-glaucomatous. Group-IV included those patients who were diagnosed non-glaucomatous on initial examination but were converted to glaucomatous on repeated examinations. Group-I included 80/180 patients, Group-II included 40/180 patients, Group-III included 40/180 and Group-IV included 20/180 patients. Group-I & II were diagnosed early and no complications developed during follow up. Group-III and IV were misdiagnosed and were subjected to physical, mental and psychological trauma. Diagnosed cases show that male suffer more from glaucoma than females in ration of 2:1[6].

Group	Status	No.	Sex		%
			M	F	
Group-I	Diagnosed	80/180	60	20	44.4
Group-II	Diagnosed	40/180	25	15	22.2
Group-III	Misdiagnosed	40/180	22	18	22.2
Group-IV	Misdiagnosed	20/180	14	6	11.2

Discussion:

Importance of glaucoma diagnosis at very early stage cannot be over emphasized. It is only the casual behaviour of treating physician who considers the patient's complaint lightly and examines them superficially. As a result of which such devastating ocular condition is skipped over. Some time it is difficult for medical officers and ophthalmic surgeon to impart sufficient time to listen the patient and examine him deeply. Many times important clinical signs are missed. Sometimes patients are non cooperative and keep on moving the eyeball. Mostly the instruments are not standardized and there is schoitz /Applanation disparity. When other parameters than intraocular pressure are not considered in collaboration, there is every possibility of mistake. Dangerous and damaging intraocular pressure (target pressure) may be different for different individuals. One must differentiate between ocular hypertension from true glaucoma and low pressure glaucoma, which at time is very difficult. Phasing and water drinking test in selected cases may provide important clue. The concept of team work examining the boarder line cases must be a routine.

Conclusion

Although misdiagnosed cases are relatively less than truly misdiagnosed cases of glaucoma yet they form an important fraction of patients who may go blind within coming years. It is therefore necessary to diagnose such patients at very early stage. The surgeon should take special interest to diagnose such patients. One should not hesitate to consult senior colleagues in doubtful cases. Proper counseling for non cooperative patients is very necessary.

References

1. Jehangir Durrani: Taking up the Gauntlet against the Gruesome, Grave, Glaucoma. Pakistan journal of Ophthalmology. April 2000; 16:67-69.
2. Robert N Weinreb; management of ocular hypertension and glaucoma. Asian journal of Ophthalmology 2002; 6:15-19.
3. Ophthalmic Newsnet volume 3 No. 2 April 2005.
4. Tielseb JM Katz J. Sommer A, Quigley H A, Javitt JC. Family history and risk factor of primary open angle glaucoma. The Bltimore eye survey. Arch. Ophthalmolgy 1994; 112:69-73.
5. Ejaz Ahmad Javed, Ziaud Din Ahmed; Effect of xalaton in primary open angle glaucoma. Pakistan journal of Ophthalmology 2000; 16:82-85.
6. Dielemans 1, vingerling JR. Wolf RCW. Hofman A. Grobbe DE. Dejong PTVM. The prevalence of *primary open angle glaucoma in a population based* study in Netherlands. Mr. Rotterdam study. Ophthalmology 1994; 101:1851-9.