Glaucoma Disease

Healthcare

Keywords: Glaucoma, intraocular pressure, diagnosis, optic nerve, treatment, trabekulektomia, the risk factors, etc.

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Abstract

Glaucoma is one of the most serious and common disease of the eye pathology that doctors and nursing staff face in their everyday practice. Glaucoma is a serious and complex pathology that brings serious consequences in all layers of the eyeball and especially in the nerve of sight, which causes degeneration of nerve fibers and consequently irreversible loss of vision. Early diagnosis of glaucoma is critical to prevent permanent structural damage and irreversible loss of vision. Detection of glaucoma typically relies on examination of structural damage to the optic nerve combined with measurement of visual function. The purpose of this study is to show that as early as possible is distinguished glaucoma the most positive can be its performance. The study shows that the vast majority of patients were unaware of the disease before clinical signs appeared. In this study were included a total of 67 patients with glaucoma disease and the average age calculated resulted to be 69.4 years predominantly in the age group 70-79 years (40, 3%). This study, since it described ethyopathogenesis, epidemiology and risk factors of glaucoma, it outlines the diagnosis process, treatment for patients involved in it. In the cases studied patients are treated with medication and surgical treatment dominating the latter and the mostly used surgical treatment results trabekulektomia. The study concludes that an early diagnosis and ongoing treatment of glaucoma can help in maintaining or at least slowing the progress of the disease in most people.

Introduction

Glaucoma disease is one of the most serious and more frequent diseases which is related to the pathology of the eye in the sector of ophthalmology. We often hear from the patients questions like: "Do I have the disease of the eye tension?"

From this question is understood that the patients think of glaucoma only as an increase of eye tension. In fact, glaucoma is a serious and complicated pathology, which causes serious harm to all layers of eyeball, especially in the seeing nerve, which causes degeneration of nerve fibers and therefore irreversible loss of vision. Through years glaucoma is modeled as a privilege for the doctor, either in its diagnosis or screening, or in its treatment. In the last decades is seen necessary the organization of the whole teams for this problem.

One of the persons who gives great contribution to the treatment of disease of the patient, to the consequences and risks that arise and that it brings and optimism is the role of nursing staff that in conversation, all-explaining and advising of the disease with the patient have extraordinary values and which oftentimes are more important than the use of the medication itself. A well-prepared university staff can not be conceived without a skilled nursing team, which is one of the key links in the treatment, the improvement and rehabilitation of the patient.

Etiopathogenesis

There are many glaucomas, but the most common is open-angle glaucoma, for which up to now there are numerous scientists who have made efforts for the discovery of its etiopathogenesis. Since the beginning we have to admit that there are many statements in the electronic microscope levels, but its real cause is not known even today. For the glaucoma with an open angle it is known that its causes focus to the ways of its elimination (trabecular Corneo-sclerale, the Seclem Channel, aquasae veins, konfluant and episklerale veins).

These elements are part of the elimination of aqueous fluid. In normal condition, the amount of aqueous fluid output is equal to the quantity of its elimination. This makes the pressure inside the eye to be maintained in the normal limit, which is to 20mmHG with the Golelmanit tonometrin.

In the past it was thought that hypersecretion of aqueous fluid may result in glaucoma, labeled differently as hypersecretion glaucoma, which in conditions when the ways of aqueous fluid elimination is almost impossible to cause an increase in tension. This conclusion has found full approval and today open-angle glaucoma is caused mainly by reasons focused on ways of eliminating the liquid water. Since open-angle and closed-angle glaucoma are caused from the production, movement and elimination of the liquid water, we see the need to present all this process schematically.

Epidemiology and Risk Factors

In this study were included 67 patients, 41 patients (61.2%) were males and 28 (38.8%) females.
• 11 patients (16.4%) had monocular glaucoma and 56 patients (83.6%) had glaucoma in both eyes.
• calculated average age according to patients resulted 69.42 years predominantly aged 70-79 years (40.3%)
• The minimum age was 29 years and the maximum 88 years.
• 66 patients (98.5%) were unaware of their disease before clinical signs appeared, and 11 patients (16.41%) appeared without previous knowledge about their diagnosis.

Gender	Frequency	%
Males	41	61.2
Females	26	38.8
Total	67	100

Result about intraocular pressure in the right eye

The average intraocular pressure in the right eye was 36.5 mmHg, 14 mmHg, whereas the minimal pressure was 14 mmHg and the maximal pressure was 70mmHg

Result about intraocular pressure in the left eye

The average intraocular pressure in the left eye was 33.1 mmHg. Minimum pressure was 7.1 mmHg and maximum pressure 69 mmHg.

Age group	Frequency	%
>40	1	1,5
40-49	2	3.0
50-59	7	10.4
60-69	18	26.9
70-79	27	40.3
<80	12	17.9
Total	67	100

Diagnosis

In the left eye:
11 patients had only *primary glaucoma* associated with no other eye diseases. Intraocular pressure in these patients varies from less than 15 mmHg to about 35 mmHg.

3 patients except *chronic glaucoma* had *cataract glaucoma*, too. One of them appeared with the pressure exceeds 35 mmHg.

11 patients had *almost absolute glaucoma*, where one of them had cataract, too. 4 out of these 11 patients had pressure between the interval 25-34 mmHg, 2 patients had pressure under 21 mmHg and others had a high pressure exceeds 35 mmHg.

11 patients had absolute glaucoma where the pressure is over 35mmHg in 8 of them. One of these patients with absolute glaucoma had also diabetic retinopathy. 2 of them appeared to have severe pains.

3 patients had glaucoma operata, wherein in one of them it appears decompensated. In these patients the pressure is presented below 15 mmHg, except that with decompensation, where the pressure exceeds 35mmHg.

In the right eye:

10 patients had only primary glaucoma accompanied with no other diseases of the eye. 50% of them had intraocular pressure above 35mmHg.

5 patients had primary glaucoma with an open angle and cataract. Their pressure varies from 19-35mmHg.

3 patients have chronic decompensated glaucoma.

5 patients had almost absolute glaucoma, one of which has the senile cataract. Pressure ranging from about 35mmHg to 15mmHg in 3 of them.

4 patients have absolute glaucoma, wherein one of them had a cataract apart with absolute glaucoma. This makes a total of 8 glaucoma patients and with the cataract in the right eye.

1 patient had glaucoma operate and with the pressure of 17mmHg.

PIO in the right eye

	MALES	FEMALES	TOTAL
>=15 mmHg	1	1	2
16-18 mmHg	0	2	2
19-21 mmHg	3	1	4
22-24 mmHg	3	3	6
25-29 mmHg	3	1	4
30-34 mmHg	2	3	5
<= 35 mmHg	16	8	24
	28	19	47
	MALES	FEMALES	TOTAL
>=15 mmHg	4	1	5
16-18 mmHg	1	3	4
19-21 mmHg	6	3	9
22-24 mmHg	1	1	2
25-29 mmHg	3	2	5
30-34 mmHg	3	2	5
<= 35 mmHg	13	11	24
	31	23	54

Were patients aware of their disease before signs appeared?

	FREQUENCY	%
NO	66	98,5
YES	1	1.5
TOTAL	67	100

Awareness of the diagnosis at the time of presentation

	FREQUENCY	**%**	
NO	11	16.41	**AVERAGE AGE 74.1**
YES	56	83.59	
TOTAL	67	100	

Treatment

24 patients received drug treatment, 16 of them recovered and the rest underwent KEMP.

Patients who were treated with drug treatment

	Frequency	**KEMP**	**Recovered**
NO	43	18	25
YES	24	8	16
TOTAL	67	26	41

Patients with surgical treatment

	FREQUENCY	**%**
ENUKLACION	7	16,2
PHACO+IOL	7	16,2
PHACO + TRAB	3	7,0
TRAB + IB	26	60,6
TOTAL	43	100

43 patients (64.2%) received surgical treatment. Trabekulektomia results as the mostly used treatment with surgical patients, 26 patients (60.6%) of these had interventions only with trabekulektomi, 3 patients (7%) except with trabekulektomi was interfered with fakomulsifikacion and implantation of intraocular lens, 7 patients (16 , 2%) was done the etefakoemulsifikacion and 1 patient (2.3%) did the removal of the eye. Of these 25 patients had improvement of the situation and in 18 of them was prevented the exacerbation of the situation, and 4 patients were supplemented with relevant documentation for their inability to work at Kemp's.

Conclusions

1.With the increase of age increases also the possibility of suffering from the disease of glaucoma.
2.It should strengthen health education of basic and periodic control to detect this disease because as seen patients are examined with a delay causing disability in appearance of sitting higher compared with rates in the region.
3. Successful intervention achieves to retain in norm values of ocular pressure.
4. Timely detection of glaucoma remains an important target in the prevention of blindness. There is a need for comprehensive national studies to know the real prevalence of this disease.

Recommendations

As earlier as possible to distinguish glaucoma, that much better and positive will be its conduct. Early distinction and its continuous treatment may help preserve or at least slow its progression in most people.
Until today regular eye examinations are the most effective forms of prevention of a significant injury from glaucoma. We generally recommend:

• People over 40 years old to perform an examination every 2-4 years.
• People aged 40-54 years old to perform an examination every 1-3 years.
• People aged 55-64 years old to perform an examination every 1-2 years.
• People after age 60 to perform an examination every 6-12 months.

Those patients who have a high risk factor should be tested every year or every two years after age 35. In those patients with high risk who are involved with family glaucoma history, high intraocular pressure, or even with diabetes.

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