



A new way of Presbyopia Treatment in Young People (20-40) years by Physical Exercises of the Eye Muscles.

Mundher Sameen Shuker.

Assist. Prof Dr, Department of Optics Technology, College of Health and Medical Technology, Middle Technical University, 10047 Bab Al Muadham, Baghdad, Iraq.

Abstract:

Examination of degree of vision for patient to determine presbyopia in young people before and after therapeutic exercises and to know the amount of improvement in each session after taking a history of the patient and identification of treatment methods according the prescription with the eye moving to all directions and push it forward to reduce pressure on the eye muscle about 20 mints during the exercises (1-6) session in order to stimulate the weak eye.

The appearance of presbyopia among young people from new cases because concentration for long periods and for more than 4 hours using the modern devices, which caused the occurrence phenomenon among young people and need for reading glasses. All patients were treated of and improved in the degree of consideration each session with therapeutic exercises after identifying and moving the weak eye muscle and found the examination and do not need to use any glasses to read during the examination and get visual acuity (VA=6/6 or 6/9).

Key words; Presbyopia in young people, Physical Exercises and Eye Muscles.

Introduction;

Presbyopia is decreased vision low vision power in both or one eye to use and to concentration for near distance and a start in 40 up to 60 years during 33 cm and being able to read it and make sure it exists by eye test. Presbyopia is the medical term used when the vision in one of the eyes is reduced because the eye and the brain are not working together properly [1].

The eye itself looks normal, but it is not being used normally because the brain is favoring the other eye [1].

It is a type of optical defect in the vision at close range and, if can be corrected by glasses but now condition appeared in younger people before the age 40 years.

Symptoms;

The presbyopia is gradually developing these sign and symptoms notices appear after the age 40 years, but today appear in younger people such as [2] Vision blurry, strabismus, cataract etc.

Causes;

It is diagnosed by identifying low visual acuity (VA) in one eye or in both eyes out of proportion to the structural abnormality of the eye and excluding other visual disorders as causes for the lowered VA. It can be defined as an intraocular difference of two lines or more in acuity, when the eye optics is maximally corrected [3].

In young children, (VA) is difficult to measure and can be estimated by observing the reactions of the patient reacts when one eye is covered, including observing the patient's ability to follow objects with one eye. Stereo tests are not reliable exclusion tests for presbyopia.



A person Who passes the lang stereo test is unlikely to have strabismic presbyopia, but could nonetheless have refractive [4]. It has been suggested that binocular retinal birefringence scanning may be able to identify, already in very young children, presbyopia that is associated with strabismus, Diagnosis and treatment of presbyopia as early as possible is necessary to keep the vision loss to a minimum [5]. The stiffness of the eye muscles occurs a gradual of ability to use the eye to focus on nearly distance and image appear without focusing from the lens to form the image we see. To clear vision at different distance a change in the refractive error for image to fall on the retina through circular muscles relaxation by accommodation of the eye muscle [2]. Eye adjustment occurs in people between 40 - 50 years of age with a reading impairment and reading glasses that last up to 60 years are completely lost [6]. Today the step occurs in young people age 20 years because of the misuse of smart devices for long periods 6-10 hours continuously with the presence of some diseases such as diabetes can increase the risk of early injury amblyopia. The treatment is to compensate for the inability of the eye to focus on objects nearby and include the use of glasses for reading or contact lenses, but today used therapeutic exercises for the muscles of the eye in stat of surgical intervention has appeared in young people.

The method of work;

Treatment: Eye exercises are performed as a physical treatment of the eyes; The patient's eye muscles can be controlled through the eye movements to all directions to determine the degree of deviation by bar prism and treatment with physical exercises and then push it forward prominently during exercises after put the cornea in the center eye and focusing the eye at a certain point Using a principal pin hole through 20 mints. I.e. (pressure reduces of the eye muscles) Special exercises to practice a group of movements to rebuild or eye muscles treatment. The patient is examined by the optician and the therapeutic exercises continue without any surgical intervention by 1-6 sessions only to obtain' VA'=6/6 or 6/9, The tests are done before and after the exercises, as well as exercises are carried out under the supervision of parents for an hour and a half without use mobile and iPods for long periods & use of dark in the use of vitamin A and not to be close to the television less than 3 meters.



Figure (1) Sanell Chart



Figure (2) trail case.



Figure (3) Vertical and horizontal prism.

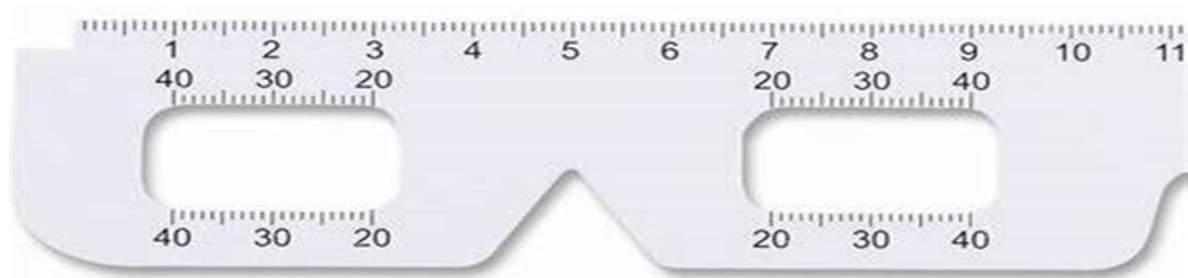


Figure (4) Printable PD Ruler in mm.

Result & Discussion;

The number of females was 23, and the number of males was 27, and most of them were university students who used smart devices by 70% up to 35 years and long hours (more than 4 H per day), causing this to happen. For reconstruction less than 40 years and after the physical exercises became VA = 6/6 up to 6/9 and make up 90% of patients as it is a high proportion in the correct This constitutes a high percentage of refractive error correction in the eye without any surgery and no use of any type of medical drug in the treatment.

Table (1): Distribution of age patients' groups (years) and Gender and Occupation and causes of disease.

Age groups (years)	Gender		occupation		Causes of disease	
	Male	female	student	gainer	Smart instrument	other
20 - 25	5	14	17	2	15	4
26 - 30	12	4	11	5	15	1
31 - 35	2	4	6	0	4	2
36 - 40	4	5	1	8	2	7
Total	23	27	35	15	36	14



It is noticeable in the above table that shows the number of males 23 and the females 27 students, and that most of the patients who use smart devices for long periods of time are postgraduate students, 35 student and within the age group 20-30 years, and the least infected patients are among the patients within the age group 36-40 years. In addition to the presence of 14 students who did not wear glasses and did not adhere to medical instructions throughout the treatment period, which is 6 months.

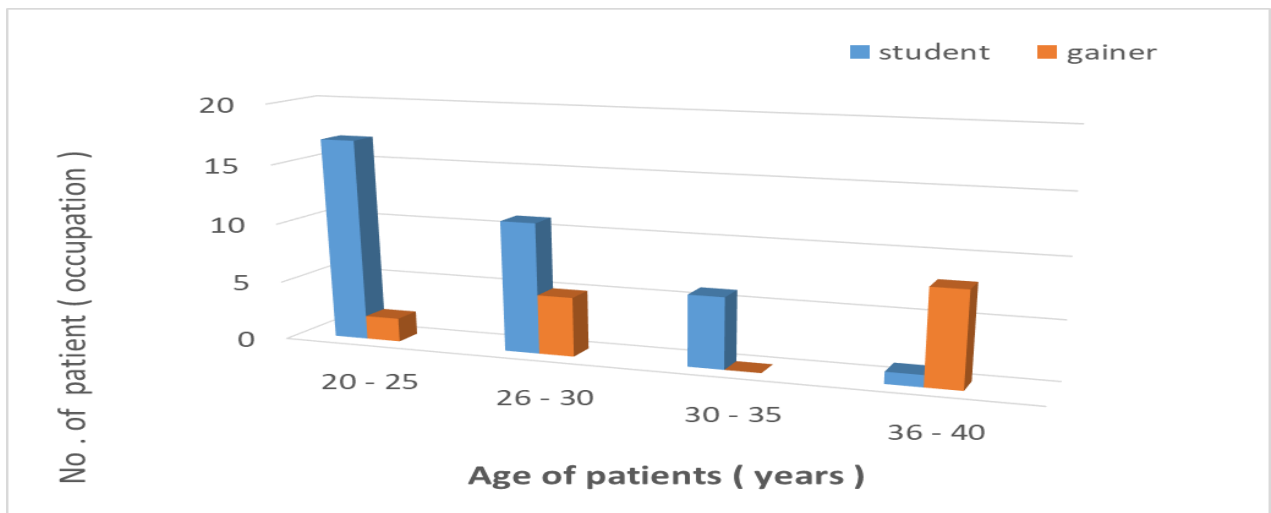


Figure (1 – 1): Relationship between Age of patient (years) with Gender.

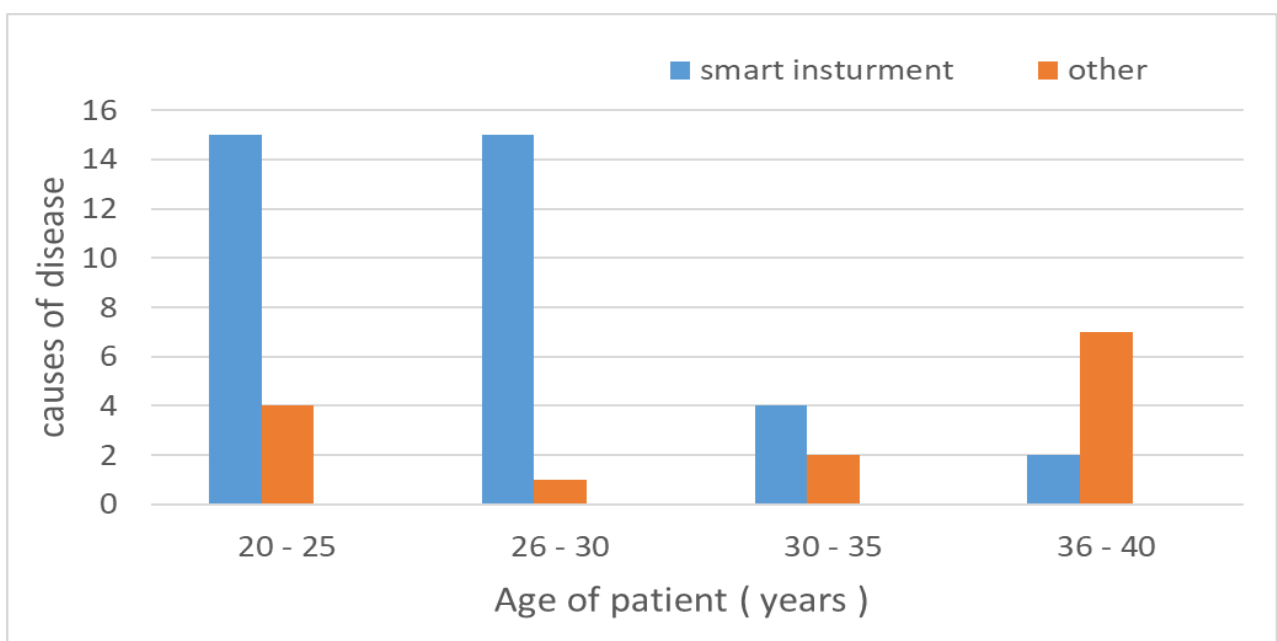


Figure (1 – 2) Relationship between Age of patients (years) with occupation.

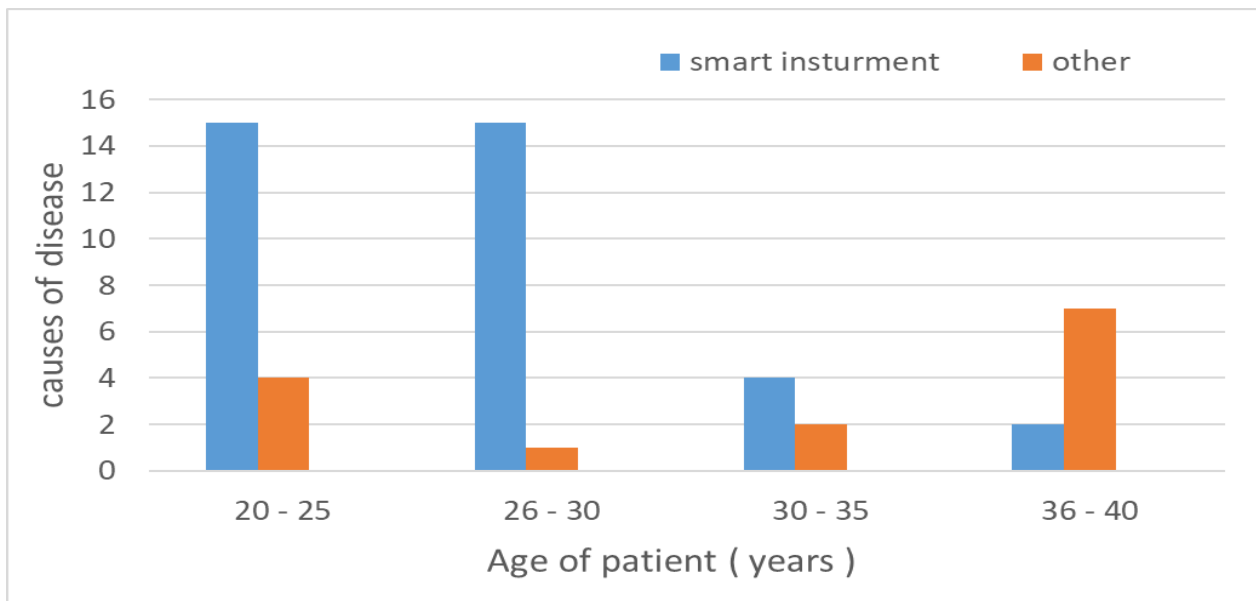


Figure (1 – 3) Relationship between Age patients with causes of disease.

Table (2) Distribution of power eyes (Degree of vision) for patient and No. of patient (eyes) before and after stimulations.

Power eyes	No . of before patient	No . of after patient
Zero (Plano)	0	40
+ 0. 25	3	5
+ 0.5	2	3
+ 0.75	8	2
+ 1.0	15	—
+ 1.25	12	—
+ 1.5	5	—
+ 1.75	4	—
+ 2.0	1	—

Table 2 shows the number of patients before and after treatment who have different degrees of vision and the extent to which their condition improved after adhering to their instructions, as the degree of normal vision (6/6) reached 40 (80%) out of 50 patients, only a few remained with degrees of vision less than 0.75 D, due to their lack of interest in therapeutic exercises.

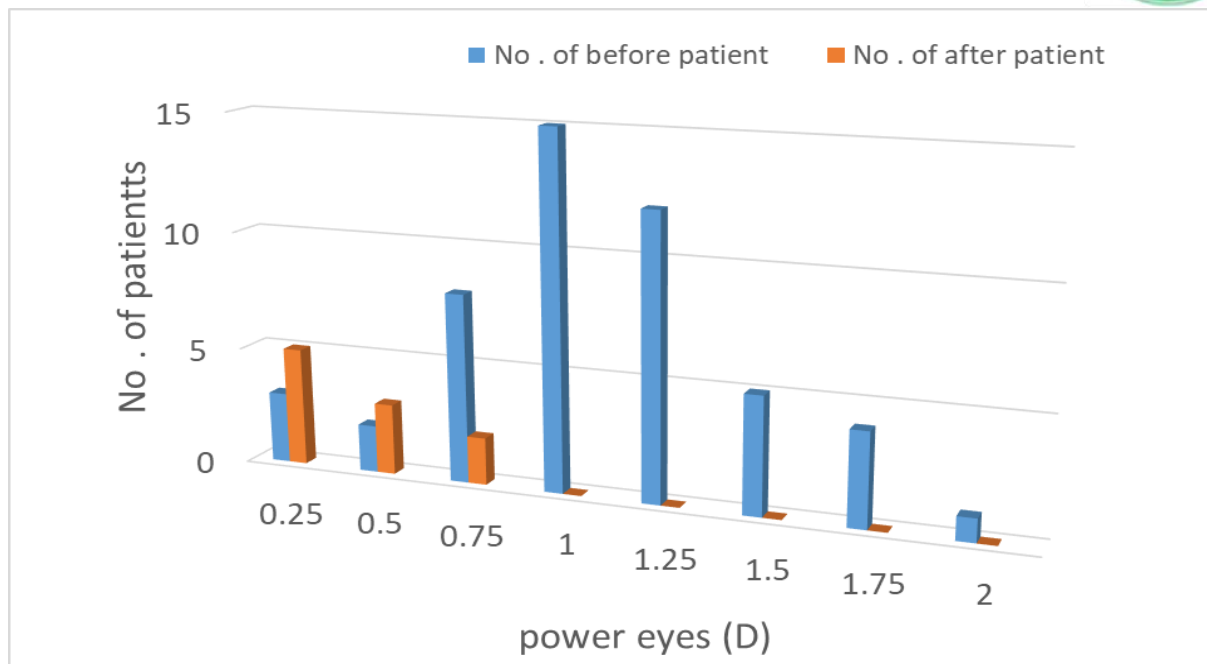


Figure (2) Relationship between power eyes with no of patients before and after stimulation (therapeutic exercises).

Conclusions;

1-Treatment or improvement of the degree of consideration of each session through therapeutic exercises without any surgery for the patient. While not closing the eye and without glasses wearing during the exercise, but the condition of the cornea in the middle of the eye using a principal pinhole during the exercises.

2-Most of the patients in the class of learners 80% of patients because of the use of various types of smart devices for long periods while neglecting to examine the eye.

3- Patients were improved by physical exercise by 80% for 6/6, while others were improved by 6/9 with 16% or did not follow instructions and exercises. The exercises were in the form of (1-6) sessions per week for a maximum of two month.

The good results obtained by the exercises after the help of the parents have been eliminated such new cases after the commitment to home exercises required with the knowledge that most patients were transferred by doctors and specialists who have been shown the results.

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