MEDWIN PUBLISHERS
Committed to create value for Researchers

Open Access Journal of Ophthalmology
ISSN: 2578-465X

Summary of Monocular and Binocualar Subjective Refraction

Partha Haradhan Chowdhury[1]* and Brinda Haren Shah[2]

[1]M.Optom, Associate Professor, Principal, Department of Optometry, Shree Satchandi Jankalyan Samiti Netra Prasikshan Sansthan, Pauri, Affiliated to Uttarakhand State Medical Faculty, Dehradun, India

[2]M.Optom, Guest Lecturer, Department of Optometry, Shree Satchandi Jankalyan Samiti Netra Prasikshan Sansthan, Pauri, Affiliated to Uttarakhand State Medical Faculty, Dehradun, India

Short Communication
Volume 3 Special Issue 2
Received Date: October 04, 2018
Published Date: October 22, 2018

***Corresponding author:** Partha Haradhan Chowdhury, M. Optom, Associate Professor, Principal, Department of Optometry, Shree Satchandi Jankalyan Samiti Netra Prasikshan Sansthan, Pauri, Affiliated to Uttarakhand State Medical Faculty, Dehradun, India, Email: optometrypublish@gmail.com

Abstract

This paper describes about summary of monocular and binocular subjective refraction.

Keywords: Monocular Subjective Refraction; Binocular Subjective Refraction; Cyclodemia

Short Communication

Subjective Refraction should be always being started after completing the Objective Refraction like Retinoscopy. At the initial stage, Binocular subjective Refraction and Monocular Subjective Refraction are same except maintaining the binocular fusion.

Step 1

For monocular and binocular subjective refraction, firstly, it should be always emphasized on the proper placing of the trial frame on the face. To check proper position of the trial frame, pinhole is placed in the trial frame and patient is asked to read the visual acuity chart. If the patient is able to read, it means trial frame is in proper place.

Step 2

After the trial frame fitting, static Retinoscopy should be performed by the practioner. On that neutralizing point, fogging is being started. This procedure is called "CYCLODEMIA". This procedure is applicable for both myopic and hyperopic patients. Eg.

a) In case of hypermetropia, if neutralization is achieved with +6.00 Ds lens, then the procedure will be: left eye should be occluded, then patients instructed to look at 6/60 letter. Then sequentially +6.00 D will be reduced. At first, +5.50 Ds lens is placed in front of the +6.00 Ds lens, then +6.00 Ds lens is reduced, then patient is instructed to read. Again same procedure is followed until best visual acuity is achieved. Same procedure is repeated for the other eye.
b) In case of Myopia, cyclodemia procedure is being followed. It is same like the hypermetropic procedure, the only difference is, at first neutralizing lens is removed and then another lens is placed and here lens power is increased until best visual acuity is achieved. Suppose, after Retinoscopy, if neutralization is achieved with -6.00 Ds lens in Right Eye, then at first, left eye should be occluded. Then patient will be asked to look at the letter 6/60 with -6.00 Ds lens then sequentially this power is increased. i.e. at first, -6.00 Ds lens is removed from the right eye and then -6.5 Ds lens is placed and patient is instructed to read that

letter. This procedure is followed until best acuity is achieved.

In case of binocular subjective refraction, when right eye is being tested, then left eye is maintained fog up to +0.75 Ds.

In cases of Astigmatism, always Monocular Subjective Refraction is followed. Here, Radial Dial chart should be used to find out the astigmatic error.

c) After completing the above procedures, someone suggest about the equalizing procedure and someone advocate it is unnecessary because both eyes have already been fogged and separately been fogged and unfogged also.

In Equalizing procedure, accommodative effort is simultaneously provided to both the eyes. The importance of this procedure is, in this case one eye is in fogged condition and another eye is tested. So, due to untested eye is in fogged condition it acts as a synergist, it is assumed.

d) Lastly, According to Borish, patient is directed to the single non polarized chart, that is fused for Binocular Vision.

References

William J Benjamin (2006) Borish's Clinical Refraction. 2nd (Edn.).

Theodore Grosvenor, Theodore P Grosvenor (2007) Primary Care Optometry. 5th (Edn.).

Sir Stewart Duke-Elder, David Abrams (1978) Duke-Elder's Practice of refraction.