Short Communication

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Precise Information on Anisometropia

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Abstract

This paper describes about Anisometropia, its types with examples and its Treatment.

Keywords: Anisometropia; Types of Anisometropia

Introduction

Anisometropia is a binocular optical defect. It means it is a binocular phenomenon because refractive error of one eye is compared to another eye. In Anisometropia, refractive error of two eyes is different.

If,

a)   RE: +0.25 Ds (6/6)

b)   LE: +0.50 Ds (6/6)

This is also considered as Anisometropia, but if difference is +1.00 Ds, then it is considered as considerable Anisometropia.

Eg:

a)   RE: +1.00 Ds (6/6)

b)   LE: +2.00 Ds (6/6)

When the difference between refractive error of two eyes is 1.00 D, then Retinal size difference will be 2%. Patient can tolerate upto 5% Retinal image difference between two eyes. It means two eyes Refractive error difference will be upto 2.50 D, but practically patient can tolerate upto 4.00 D.

Types of Anisometropia

a)   Simple anisometropia

b)   Compound anisometropia

c)   Mixed anisometropia

d)   Simple astigmatic anisometropia

e)   Compound astigmatic anisometropia

f)   Mixed astigmatic anisometropia

Simple Anisometropia

It is subdivided into Simple Myopic Anisometropia and Simple Hypermetropic Anisometropia. Here, one eye will be emmetropic and another eye is either Myopic or Hypermetropic.

Eg.

a)   RE : Plano (6/6)

   LE: -2.00 Ds (6/6)

This is a case of Simple Myopic Anisometropia.

b)   RE: Plano (6/6)

   LE : +2.00 Ds (6/6)

This is a case of Simple Hypermetropic Anisometropia

Compound Ansiometropia

It is subdivided into Compound Hypermetropic Anisometropia and Compound Myopic Anisometropia. Here, different Refractive error is present between two eyes but both eyes have either plus power of minus power.

Eg.

Compound Hypermetropic Anisometropia: RE: +2.00 Ds (6/6); LE: +4.00 Ds (6/6)

Compound Myopic Anisometropia: RE: -2.00 Ds (6/6); LE: -4.00 Ds (6/6)

Mixed Anisometropia

Another name Mixed Anisometropia is "Antimetropia." Here, one eye is Hypermetropic and another eye is Myopic.

a)   RE: +5.00 Ds

b)   LE: -5.00 Ds

Simple Astigmatic Anisometropia

It is subdivided into Simple Myopic Astigmatic Anisometropia and Simple Hypermetropic Astigmatic Anisometropia.

Simple Myopic Astigmatic Anisometropia: Here, one eye is Emmetropic and another eye is having Myopic Astigmatism

a)   RE: Plano

b)   LE: 0.00/-2.00 Dcyl *90

Simple Hypermetropic Astigmatic Anisometropia

Here, one eye is Emmetropic and another eye is having Hypermetropic Astigmatism.

a)   RE: Plano

b)   LE : 0.00/+2.00 Dcyl*90

Compound Astigmatic Anisometropia

Here, both eyes are astigmatic but of unequal degree, when it is Myopic then,

a)   RE: -2.00 Dsph/ -2.00 Dcyl*90

b)   LE: -4.00 Dsph/-4.00 Dcyl*90

c)   When it is Hypermetropic, then

d)   RE: +2.00 Dsph / +2.00 Dcyl*90

e)   LE : + 4.00 Dshph/ +4.00 Dcyl*90

Mixed Astigmatic Anisometropia

a)   RE: +2.00 Dsph/+4.00 Dcyl*90

b)   LE : -3.00 Dsph /-6.00 Dcyl*90

Treatment

Anisometropia is always treated with either Aspheric design of Spectacle lens or otherwise Contact Lenses. In case of high amount of Anisometropia, then Refractive surgery can be considered.

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