PRECISE INFORMATION ON INTER PUPILLARY DISTANCE AND PRENTICE RULE

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ABSTRACT :

This paper describes about Inter Pupillary Distance and Prentice Rule.

INTRODUCTION:

Inter Pupillary Distance (IPD) measurement is a very important matter for proper placement of the spectacle. In case of high Refractive error, if Inter Pupillary distance is not proper then patient may feel prismatic effect and it can create Eye ache and Head ache.

There are four types of IPD:

- Uniocular Pupillary Distance
- Monocular Pupillary Distance
- Near Pupillary Distance
- Distance Pupillary Distance

When we measure the IPD, on that time it must be remembered:

(a) Right eye centre of the pupil and Left eye centre of the pupil

(b) Right Eye Temporal Limbus and Left Eye Nasal Limbus

(c) Right Eye Nasal Limbus and Left Eye Temporal Limbus

And during measure the IPD always it is remembered that Observer Eye Level and Patient Eye Level will be in equal height.

Among of the IPD, most important is **Near PD**.

When we consider to measure Near PD then (Patient is asked to stand in front of the observer)

- Patient's Right eye and Observer's Right eye and Patient's Left eye and Observer's Left eye.

When taking PD of Right Eye, patient will be asked to look observer's Right eye

And

When taking PD of Left Eye, patient will be asked to look observer's Left eye.

For Distance PD

When we consider measuring Distance PD then, (Patient is asked to stand in front of the observer)

＋ Patient's Right eye and Observer's Left eye and Patient's Left eye and Observer's Right eye.

When taking PD of Right Eye, patient will be asked to look observer's Left eye

And

When taking PD of Left Eye, patient will be asked to look observer's Right eye.

PRENCTICE RULE:

By this formula we can able to understand of Prismatic effect, if spectacle is displaced from the optical centre.

P = C*F

Here C is displacement

F is Refractive error

After using this formula (P = C*F) below four points are very important.

1. In case of Minus Refractive error, Base direction will be opposite compared to Displacement direction.
2. In case of Plus Refractive error, Base direction will be same compared to Displacement direction.
3. Always Displacement will be converted into cm
4. After getting result no sign (+/-) will be used only Base Direction will be used like Base-Up, Base- Down, Base- Up, and Base- Down.

Eg:

1. If -11.00 Dsph Displacement 5 mm towards Nose, what will be the Prismatic effect?

First Answer will be:

Base out. Because refractive error is Minus (-) and displacement is towards nose, that's why Base out is final answer due to in case of Minus (-) refractive error base direction will be opposite compare to the displacement.

Second Answer:

P = C*F

= 0.5 x (-11.00)

= 5.5 Base Out

2. If +11.00 Dsph Displacement towards outside 5 mm, what will be the Prismatic effect?

First Answer will be:

Base out. Because refractive error is Plus (+) and displacement is towards out, that's why Base out is final answer due to in case of Plus (+) refractive error base direction will be same side compare to the displacement.

Second Answer:

P = C*F

= (0.5) x (+11.00)

= 5.5 Base Out

3. If -10.00 Dsph Displacement 5 mm towards out, what will be the Prismatic effect?

First Answer will be:

Base In. Because refractive error is Minus (-) and base direction is towards Out, that's why Base In is final answer due to in case of Minus (-) refractive error base direction will be opposite compare to the displacement.

Second Answer:

P = C*F

= 0.5 x (-10.00)

= 5.0 Base Out

4. If +10.00 Dsph Displacement towards Nose 5 mm, what will be the Prismatic effect?

First Answer will be:

Base In. Because refractive error is Plus (+) and displacement is towards Nose, that's why Base In is final answer due to in case of Plus (+) refractive error base direction will be same side compare to the displacement.

Second Answer:

P = C*F

= (0.5) x (+10.00)

= 5.0 Base Out

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