

## **Case presentation 1: HEREDOMACULAR DEGENERATION**

Mst. XYZ, 11 year old male was referred to the Low vision clinic by retinal clinic for further evaluation and management. He was diagnosed with OU: Heredomacular degeneration. The child was accompanied by his parents and he was youngest of 3 siblings. Gross observation revealed normal behaviour and child was able to maintain eye contact. He was 3rd standard student in a regular school. His sitting position was on 3rd bench in the middle row.

Child's chief complaint was diminished vision for distance and near in both eyes since 3 years and he was unable to see black board and television clearly. Birth history was normal and had no unwanted events. His ocular history revealed no prior eye examination, ocular surgery or use of low vision devices. His medical history was not significant.

### **Low Vision Evaluation:**

- **Task related history:** child had difficulty in writing in straight line, but he could read his books clearly while keeping it at close distance from the face. He could not identify faces, bus numbers and train boards. He complained of difficulty to mobility in bright sunlight and reduced vision with direct car lights at night. He did not complaint in mobility issues otherwise.

- **Visual Acuity:**

**Distance:** (LVRC English flip chart) OD= 1.1 Log MAR, OS= 1.2 Log MAR, OU= 0.9 Log MAR.

**Near:** (LVRC English chart) OD= 1 M, OS= 1.25 M, OU= 0.8 M at 10 cm.

- **Refraction:**

**Net Retinoscopy: OD: +1.25 DS, OS: +1.25DS**

**Acceptance: OD: +1.00 DS, 1.0 Log MAR, Near VA 0.8M @ 20 cm.**

**OS: +1.25 DS, 1.1 Log MAR, Near VA 0.8 M @ 20 cm.**

- **Colour vision:** OU= Basic colour discrimination present.

**OD & OS = Farnsworth D-15 Panel: Within normal limits**

- **Visual field and Amsler chart:** unable to test as child is not fixating properly.
- **Contrast sensitivity function test:** (Lea contrast flip cards) OU= 25% at 1 meter.
- **Glare test:** child was comfortable with dark grey filter and peak cap in sunlight.
- **Low vision device trial for distance vision:**

OD = 4x monocular telescope on the new refractive error correction, Distance VA improved till 0.1 Log MAR. Overall child's response was good. He was able to localize and fixate the object. He could smoothly scan and tract letters on the chart.

### **Low vision Rehabilitation and Management:**

- Refractive error was prescribed with dark grey photochromic tint for the constant use.
- 4X monocular telescope was dispensed after black board training
- Letter writer and typoscope with thick black felt tip pen was advised while writing in the book.
- Peak cap and umbrella was advised for use when out in sun.
- Approach magnification was explained while watching TV or studying.
- Letter to school teacher was given for school sitting modification.
- Referred to genetic counsellor with parents.
- Follow up visit was given after 1 month / sos.



Trial of filters



Trial of telescope