

High Myopia in Transpupillary Thermotherapy Treated Retinoblastoma - CASE REPORT

Dupe Ademola-Popoola

Paediatric Ophthalmology, Strabismus & Oncology Unit, University of Ilorin and University of Ilorin Teaching Hospital, Ilorin, Nigeria.

Corresponding author: E-mail: Popoola.d@unilorin.edu.ng / dupsy@yahoo.com

Background: Transpupillary LASER Thermotherapy (TTT) is typically used in retinoblastoma (RB) to salvage vision.¹ The children are often young and the focus is typically to manage the tumour without much attention being placed on assessment of visual acuity. Children who are treated with LASER for retinopathy of prematurity have been found to have higher incidence of myopia.² The follow up schedule in such young children with RB is usually designed to review regression or to ensure there are no new tumours or metastasis, and visual acuity assessment is not routinely done in early life. Because of the young age of children who are treated with TTT for RB, it is not clear whether they also more susceptible to developing myopia. A previous study on refractive errors in children treated for retinoblastoma reported more hyperopia in posteriorly located tumours, it was however was not related to treatment provided.³ Macula tumours were found to mostly have poor prognosis while visual outcome had no correlation Reese-Ellsworth classification not Excluding Reese-Ellsworth group VB diseases.⁴ It was also reported that despite laser application directly to the fovea, 57% of patients with macular retinoblastoma retained 20/80 or better vision.⁵

Case Report: A five-year-old male child who lived about 250km from our tertiary RB centre where he was managed for bilateral retinoblastoma from 5 months of age. He had 6 sessions of chemotherapy, enucleation of the right eye and 4 sessions of TTT to multi-foci tumour in the left eye all within the first year of life to achieve remission of the RB. One of the tumours was inferior to the macular (Figure 1).

The child was lost to follow up for 2 years, and then presented at the age of 5 years on account of poor vision in the eye which had impacted his school performance. There was no known history of myopia in family. On evaluation, he had myopia of -10.5 Dioptres and amblyopia for which he received eyeglasses.

This brought up the question of "How often does myopia occur after TTT for RB in children", Is there a causal relationship between TTT for RB and

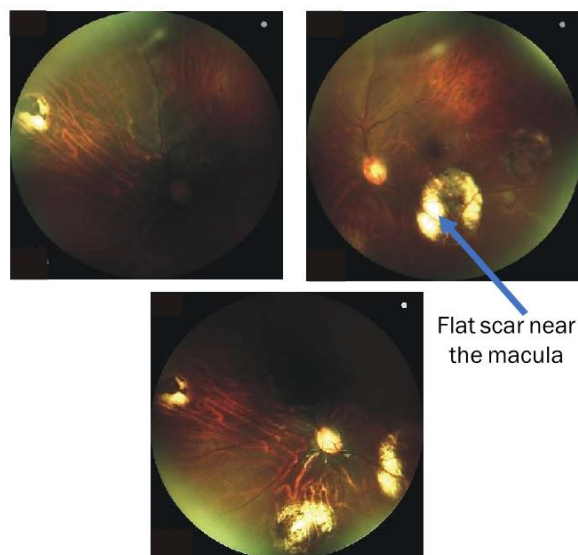


Figure 1: Flat scar type regression in multi-foci retinoblastoma after Chemotherapy and Transpupillary thermotherapy

Myopia? Is this related to the number or location of the tumour? Studies should be designed to provide answers to these questions.

Conclusion: Visual acuity assessment should be routinely done early in the follow up care of children with Retinoblastoma who are treated with LASERs so that early intervention could be implemented should myopia develop.

Keywords: Transpupillary Thermotherapy, Retinoblastoma, Myopia, Vision Salvage

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