

## CASE REPORT

### PRIMARY PTERYGIUM IN A 7-YEAR-OLD BOY: A REPORT OF A RARE CASE AND DILEMMA OF ITS MANAGEMENT

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Primary pterygium in children is uncommon but is associated with severe visual problems. Astigmatism is the main visual problem caused by pterygium. Significant amounts of astigmatism occur long before a pterygium encroaches the visual axis. Early surgical intervention is safe and effective. It is associated with significant visual improvement in outcome. This is a case report on seven-year-old Malay boy who presented with a growth over nasal aspect of the right eye of 1 year duration. His right eye visual acuity is affected up to 6/12. The dilemma posed to early surgical intervention is the high rate of recurrence in the young age group. This problem is highlighted in this case report.

*Key words* : Pterygium, astigmatism

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#### Introduction

Pterygium is a benign, usually progressive fibrovascular overgrowth of the conjunctiva arising at the inner canthus of the eye which may cause local symptoms. Astigmatism is one of the main problems caused by a pterygium (1). Significant amounts of astigmatism occur long before a pterygium encroaches the visual axis. Primary pterygium commonly occurs at 20 years of age and above. The peak incidence of primary pterygium is between the age of 20 years and 40 years (2). It has been reported to occur in children.

#### Case Report

A seven-year-old Malay boy presented to the Eye Clinic, Hospital Universiti Sains Malaysia (HUSM) Kubang Kerian on 15<sup>th</sup> June 2000 with a complaint of a growth over nasal the aspect of the right eye of one year duration. Initially he noted that his right eye frequently became red without any eye discharge. Later he felt a sandy sensation in the right eye and noted a growth over the nasal aspect of the eye. By the ninth month, he started to experience frequent headaches on-and off. He also complained that vision his right eye was blurred compared to

his normal left eye. Both he and his parents denied any history of injuries to his right eye. He did not have any history of allergy to food or drugs.

Eye examination revealed vision of 6/12( with pin-hole to 6/6) right eye (OD) and 6/6 left eye(OS). There was a primary pterygium over the nasal canthus of the right eye encroaching 2.0 mm from the limbus to the visual axis. There was no evidence of any trauma to the cornea. The examination of the rest of anterior segment was normal. Fundoscopy examination was normal. Refraction examination revealed astigmatism of (- 0.50 Diopter Sphere(DS) /-1.50 Diopter Cylinder(DC) x 52 degrees OD) and (-0.50 DS/-0.25 DC x 50 degrees OS) . Keratometric reading of the right cornea was 43.5 D and 45.0 D whereas the left cornea was 43.5 D and 44.0 D.

The patient was diagnosed to have right primary pterygium with astigmatism. In view of the patient's and the fact that the recurrence of pterygium is high in young patient, he was treated conservatively with temporary correction of the astigmatism with glasses. During the 6-month follow up visit the size the size of the pterygium had increased to 3.5 mm. His astigmatism had increased to (-0.50 DS/ - 3.50 DC x 60 degrees OD) but in the right eye remained the same in the left eye. He was subjected to pterygium excision with a conjunctival

graft under general anaesthesia. One week post-operatively, his refraction improved to (-0.50 DS/ -0.25DC x 50 degrees). His vision improved to 6/6 without any glasses. At 6 months post-operatively, there was no recurrence of the pterygium noted.

## Discussion

While a pterygium is benign it however progressively grows toward the visual axis. This will cause an astigmatism-with-the rule (3). The degree of astigmatism is detected by the refraction examination. This boy had an initial significant astigmatism of (- 1.50 Diopter at 52 degrees) which can be corrected with glasses without any problem. However as the pterygium grow the astigmatism increased to (- 3.50 Diopter). This significant refractive difference between the two eyes (anisometropia) would cause intolerance to glasses correction. Contact lenses fitting in pterygium is impossible due to the growth. B.I.Ibechukwu reported that 71.6 % of pterygium-affected eyes develop astigmatism (4). In Malaysia, a study done by Raja Azmi showed 92% of pterygium-affected eyes develop significant astigmatism (5).

The incidence of pterygium in children under 12 years old has not been reported yet. Karukonda SRK et al. showed that the peak incidence of the pterygium is between the ages of 20 and 40 years (2). In Malaysia, the peak incidence was reported to be between 30 year and 50 years ( 76%) (5).

Many ophthalmologists are reluctant to perform early pterygium excision especially in the young age group due to the high recurrence rate. Zauberman H (1967) reported 13.6 % to 36.1% have recurrence in pterygium post-surgically especially in younger age groups(6). A few modalities such as conjunctival graft, instillation of mitomycin, amnionic membrane graft and instillation of sodium cromoglycate have been successfully established to reduce the recurrence (7). The management of this patient was in difficult due to his age. Initial management with glasses was a temporary measure. The surgical intervention in this boy might cause recurrence of the lesion. However, as the lesion

advanced it will cause more visual disturbance, a definitive management has to be taken. Glasses correction is not beneficial. Surgical intervention has to be considered despite the risk of recurrence as this intervention might save his sight and relieve his problems. Therefore this patient underwent pterygium excision with conjunctival graft under general anaesthesia. Intraoperatively, it was uneventful. One week post-operatively, his refraction and his vision improved to normal. He is free from wearing glasses. At 6 months follow-up, the lesion did not recur.

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