Case Report

Detection of Choroidal Melanoma at Liaquat University Eye Hospital Hyderabad / Sindh

Sameen Afzal Junejo, Nazir Ashraf Laghari

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See end of article for authors affiliations

Correspondence to:
Sameen Afzal Junejo
Assistant Professor
Deptt. Of Ophthalmology Unit-I
Liaquat University Eye Hospital,
Hyderabad.

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A 35 year male reported at Liaquat University Eye Hospital Hyderabad with protruded, painful, and blind right eye. The patient was admitted. Detailed ocular examination was carried out and provisionally diagnosed as right proptotic painful blind eye with uveal prolapse. Further detailed investigations were done, and any primary focus or secondary spread / metastasis excluded. Enucleation of right eye including big stump of optic nerve was performed. The specimen was sent to the department of Pathology Liaquat University of Medical & Health Sciences / Jamshoro, and Agha Khan Medical University, Karachi, for histopathological / cytological examination. Two different pathology departments of medical universities confirmed the diagnosis as a choroidal melanoma.

Melanoma Choroid is a primary intraocular malignant tumor[1]. Choroid is a layer of eye wall between retina and sclera. It is considered part of uveal tract composed of ciliary body and iris anteriorly and Choroid posteriorly. Choroid has the highest blood flow in the body[2]. Most choroidal melanomas are confined to globe[2]. Therefore the local treatment of tumor is most effective.

Choroidal Melanoma is rarely diagnosed in Asia, Africa and Latin America[3]. The yearly incidence of Choroidal Melanoma in USA is 6 to 7 per million people. 65 % of melanoma patients are over the age of 50 years[3].

Clinical and histopathological evidence suggests that most melanomas arise from pre existing benign choroidal nevi. Therefore choroidal nevi should be evaluated yearly with ophthalmoscopy, photography and ultra sound[4]. The incidence of malignant degeneration of nevi into malignant melanoma is less than 1%[4].

CASE REPORT

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History of loss of vision in the right eye for ten years, severe pain and swelling for the last 3 months. Retinal detachment surgery had been done in the right eye twelve years ago. On examination there was proptosis with uveal prolapse at corneo scleral junction on temporal side. There was no perception of Light (NPL) in the right eye. Ocular movements were painful and restricted. Eye ball hard and painful on palpation. Slit lamp examination was not possible.

Examination of the left eye was within normal limits with a visual acuity of 6/9. Hemoglobin was reduced to 8 gm/dl and Leucocytes increased to 16,000 / mm^3. X-ray chest, abdominal ultrasound and liver function tests showed no evidence of primary melanoma or metastasis to the lungs or liver.

Enucleation of right eye was performed under general anesthesia. The eye ball was removed along with big stump of optic nerve, and divided

longitudinally in to two equal halves. The specimen were preserved in formalin, and sent to department of pathology, Liaquat University Of Medical & Sciences Jamshoro and department of pathology, Agha Khan Medical University Karachi for histopathological and cytological examination. Reports from both institutions showed a diagnosis of Choroidal Melanoma. Cytological examination showed it to be a spindle cell type B melanoma.

Fig. 1: Section of right eye ball after enucleation

Fig. 2: After right eye unucleation

A plastic prosthetic shell was applied to the right socket, and case referred to the Atomic Energy Department Liaquat University of Medical & Health Sciences Jamshoro for further expert treatment and follow up.

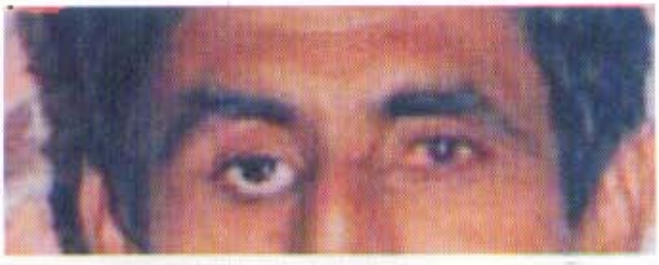

Fig. 3: After right eye prosthesis done

DISCUSSION

Melanoma of uveal tract (iris, ciliary body, and choroid) is a primary ocular cancer in adults. Any sign of growth must be considered the possibility of malignant change. In patients with small, localized tumors, ocular melanoma is curable, and preservation of vision is possible with current treatment techniques.

A number of factors influence prognosis. The most important are size, location, cell type, and extra-ocular extension (tumor size is the most critical factor). The selection of treatment depends on the site of origin (the choroid, ciliary body, or iris); size and location of the lesion; age of the patient; and whether extra-ocular invasion, recurrences, or metastases have occurred[5].

The introduction of TTT (Trans Pupillary Thermo Therapy) allows the ophthalmologist to treat smaller tumors, at an early stage and less associated with visual loss[6]. Visual acuity decreases in TTT treated eye specially those with tumors near the macula and optic nerve[7]. Cystoid macular edema can also occur after TTT[8]. The treatment of metastatic melanoma remains disappointing, due to its regional spread[9,10]. To reduce the rate of recurrence, TTT is combined with brachy therapy[11].

In a group of patients with large posterior uveal melanomas, the concurrent presence of cytogenetic abnormalities was associated with a poor outcome[12].

However, for patients with posterior uveal melanoma, the eye should be removed or more conservative treatment should be recommended[13].

Author's affiliation

Dr. Sameen Afzal Junejo
Assistant Professor
Deptt. Of Ophthalmology Unit-I
Liaquat University Eye Hospital,
Hyderabad

Prof. Nazir Ashraf Laghari
Head Department of Ophthalmology
Liaquat University Eye Hospital,
Hyderabad

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