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Ocular Malignancy: Current Indian Scenario

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Editorial

Ocular malignancy is a rare and highly curable malignancy. India does not have a proper registry for ocular malignancies but according to experts it harbours almost 20% of global ocular cancer cases due to its huge population and the incidence is on the rise. Being a relatively rare cancer and due to complexity involved in its multimodality treatment approach very few centres in India are capable of providing the state of the art care for this disease entity. Common cancers of the eye include retinoblastoma, melanoma, squamous cell carcinoma, lymphoma, or metastatic cancer from other parts of the body (secondary ocular cancer). Secondary ocular cancers are more common than primary ocular cancer. Retinoblastoma is the most common primary ocular cancer in children [1], whereas melanoma is the most common primary ocular cancer in the adult [2]. Tata Memorial Hospital registries from 1984-1993 show that peak incidence of retinoblastoma are in the age group of 0-4 years. The overall incidence of ocular cancer is 0.4% in male and 0.32% in female.

The field of ocular oncology is spreading its horizon with new developments and gaining attention worldwide. Many centres have already created dedicated ocular oncology management group and more are coming up with the same idea. As a result, cure rate and overall survival have improved significantly over the years. For example, retinoblastoma was considered a fatal disease earlier but now with multimodality treatment approach (mainly surgery, radiotherapy and chemotherapy) it is one of the most successfully treated pediatric cancer globally [3]. Although according to literature in developing countries about half of all retinoblastoma cases present late (with extra-ocular disease) to a tertiary care referral center [4] necessitating the need for a coordinated approach in the management of ocular malignancies.

Similarly, Ocular Surface Squamous Neoplasia (OSSN) is being treated more effectively with topical chemotherapy, which reduces the post-operative recurrence rate and may even obviate the need for surgery in selected cases. Many studies have shown that efficacy of topical Mitomycin-C ranges from 80-100% [5].

Ocular oncology management team needs contributions from various specialties like ophthalmology, medical oncology, radiation oncology, neurosurgery, interventional radiology, otorhinolaryngology and pathology. Advanced imaging techniques have aided in proper diagnosis of difficult intraocular cancer cases especially when the media is opaque and when we need to evaluate the extraocular extension. Radiotherapy, chemotherapy and targeted therapies are gaining priorities in the treatment protocol of ocular malignancies alongside surgical management.

In the management of intraocular melanoma episcleral plaque brachytherapy, using small radioactive seeds, are becoming the treatment of choice for most of such cases. Iodine 125 is the most commonly used radioisotope for this purpose along with Cobalt 60, Palladium 103 and Ruthenium 106 [6]. Participating in clinical trial is probably the best option as no systemic therapy (chemotherapy or immunotherapy) has proven to be much effective in the metastatic disease.

International Primary CNS Lymphoma Collaborative Group Symposium recommend that unilateral ocular lymphoma should be treated with local therapy in the form of intravitreal methotrexate and rituximab and/or external beam radiation therapy. Whereas bilateral disease and CNS involvement should be treated with systemic and intravitreal chemotherapy. Chemoresistant cases will require whole-brain irradiation and ocular radiotherapy [7].

In India, only few tertiary care centres are efficiently treating most of these cases. Many patients present late due to lack of access to such specialized centres and many do not receive any treatment because of poverty and lack of awareness.

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