

**Chapter 1 : Geoffrey E Rose**

3 Verity D., Rose G. *Benign and malignant diseases of the orbit - a review* Review David H. Verity, Geoffrey E. Rose *Oculoplastic and Orbital Service.*

Click here to view Numerous organisms infect the orbit, including bacteria, viruses, fungi, and parasites; the etiologies of these infections are given in [Table 3]. Predisposing factors include a history of immunosuppression including diabetes, sinus or dental disease, recent facial trauma [Figure 1] , and patients with systemic disease. Aetiology Click here to view Figure 1: Clinical features include proptosis, chemosis, and loss of vision due to raised intraorbital pressure. There may not be a sequential transition through each stage “ for example, patients may present with an intraorbital abscess without pre-existing subperiosteal collection. Orbital Infections “ Origins Bacteria can reach the orbit by implantation, local extension, or hematogenous spread. The paper-thin bone of the lamina papyracea and the valveless veins of the midface and orbit predispose this area to infection. Implantation results from trauma to the periorbital area or sinuses. Hematogenous spread occurs from a multiplicity of distant sites, and most often in a debilitated patient. Trauma, nasolacrimal, and odontogenic infections are also important factors that should be considered when locating the source of an orbital infection. Orbital Infections in Children Overview Among children younger than 5 years of age, pre-septal cellulitis is more prevalent than post-septal infection, with ethmoid sinusitis being the most common underlying cause. Clinical Features, Diagnosis, and Investigations The average age for orbital infection in both boys and girls is 7 years, although, for reasons unknown, it is almost twice as common in boys. Presenting clinical features include pain, heat, redness, and swelling in the periorbital region. Any history of fever, sinusitis, upper respiratory tract infection and trauma should be ascertained. In pre-septal infection, there is lid edema and redness, but ocular examination is otherwise normal Chandler stage 1. Early post-septal clinical features may be quite subtle, and include an inflammation demarcation line which corresponds to the arcus marginalis; [Figure 3] , chemosis, proptosis, reduced eye movements, and loss of vision. In the most severe cases, signs of meningitis indicate intracranial spread of an orbital infection. It is important to emphasize that examination is crucial in differentiating pre- and post-septal infections. Chemosis, proptosis, restriction of extraocular movements, positive relative afferent pupillary defect and visual loss are all indicative of post-septal infections. Click here to view A reliable history and examination are of the utmost importance in reaching the correct diagnosis. Investigations, such as hematology, microbiology, and orbital ultrasonography are frequently non-contributory and delay the initiation of treatment. Magnetic resonance imaging MRI , the secondary choice in orbital imaging, is valuable when cavernous sinus, intracranial extension, or radiolucent foreign bodies are suspected; lumbar puncture is reserved for children with features of meningitis. Anaerobes are encountered less frequently than aerobes, but carry a higher morbidity than aerobic organisms; these include *Peptostreptococcus*, *Bacteroides* sp. Outpatient management with oral antibiotics and daily review is appropriate for those individuals with only mild pre-septal disease, and who are otherwise well. In all other cases, the patient should be admitted for IV antibiotics, with systemic and visual functioning monitored and recorded at least thrice daily, depending on the severity of the clinical signs. Although sinusitis might be managed with appropriate antibiotics, where a child fails to respond to IV antibiotics, or deteriorates despite treatment, endoscopic sinus drainage should be performed. The remainder required surgical drainage, of which the majority also required ethmoidectomy. Where community-acquired methicillin-resistant *S.* This particular treatment is recommended because of the risk of meningitis from the organism. Recently, Chen et al showed in a prospective comparative study that using IV steroids with IV antibiotics concurrently is safe and reduces the length of the hospital stay. However, now, medical treatment is deemed sufficient for those with normal visual function, fewer than 9 years of age, medially located abscesses, and no evidence for intracranial or frontal sinus involvement. Rudloe et al [18] presented an algorithm to stratify the risk factors for significant complications in those patients with orbital cellulitis, who presented

without classic symptoms or clinical findings. An edema extending beyond the eyelid margins was thought to be a strong predictor of surgical intervention by Vu et al [19] Smith et al [20] found that risk factors associated with surgery included, age older than 9 years, proptosis, extraocular motility restriction, and elevated intraocular pressure. Orbital Infections in Adults Overview Orbital infections in adults can have several origins [Table 3]. Further important causes of infection include direct trauma to the eye, periocular tissues or bony orbit in which a foreign body might also be present, dental infections, and extension of infection posterior to the orbital septum from dacryocystitis [Figure 6]. [Click here to view Figure 5: A subperiosteal abscess in the superolateral quadrant of the orbit and ipsilateral frontal, ethmoid and maxillary sinusitis are apparent.](#)

**Chapter 2 : Diagnosis of enlarged extraocular muscles: when and how to biopsy | Read by QxMD**

*David H Verity has expertise in Medicine. Geoffrey E Rose. The interval between primary malignancy and orbital disease (either local spread/recurrence or true metastatic disease) showed.*

Ocular melanoma is a rare but often deadly malignancy that arises in the uvea, conjunctiva, or orbit. Uveal melanoma is the most common type, with conjunctival melanoma being the second most frequently observed. The aim of this study was to characterize the clinical presentation, treatment, and prognosis in patients presenting with melanoma metastatic to, or secondary within, the orbit. A retrospective cohort study of patients presenting to a tertiary referral orbital unit from 1980 to 2000 was performed. Eighty-nine patients with biopsy-proven diagnosis of melanoma within the orbit were included in the study. The clinical notes, radiological imaging, histology, surgical notes, and outcome data for the patients were reviewed. The main outcome measures of interest were the interval between primary malignant melanoma and orbital presentation, survival after orbital presentation, and clinical parameters such as gender, age at presentation, and treatment approach. The commonest primary source of tumor was choroidal melanoma, with conjunctival and cutaneous melanomas being relatively common; eyelid and naso-sinus tumors occurred in a few cases. The mean age at presentation with orbital disease was 65 years (range 31–97 years). Twenty-three patients were considered to have had late orbital metastases—that is, at more than 36 months after primary tumor. The median survival following presentation with orbital involvement was 24 months. Patients with tumors of cutaneous origin had worst survival, whereas those with conjunctival tumors had the best prognosis. A high index of suspicion for orbital recurrence should be maintained in any patient with prior history of melanoma, however distant the primary tumor is in site or time. Furthermore, giving a prognosis for orbital melanoma remains problematic due to highly variable survival, and further investigation will be necessary to understand the likely genetic basis of this phenomenon.

**Introduction**

Intraocular metastases from malignant melanomas usually affect sites favored by primary intraocular melanoma—namely, the uveal tract—but can also affect the optic disc, retina, and vitreous (1–5). Late presentation of secondary orbital melanoma has occasionally been reported, with the longest disease-free interval being 40 years after enucleation for a choroidal melanoma (12), but in general, these patients have been reported to have very poor survival—the average being 5. In this work, we extend the knowledge of the clinical presentation and therapeutic strategies for patients with secondary melanoma within the orbit, including patients with anatomically contiguous disease.

**Patients and Methods**

Patients seen within the Orbital Unit at Moorfields Eye Hospital, between 1980 and 2000, with biopsy-proven orbital melanoma were identified from a diagnostic database, and the clinical case-notes and imaging were reviewed where available. Patients with proven primary orbital melanoma were also included.

**Results**

The study was conducted in accordance with the Declaration of Helsinki. All participants had given written, informed consent for inclusion of data in studies prior to surgery or treatment. Survival analysis was estimated using standard Kaplan–Meier survival plots on MedCalc; normality of data was assessed using Shapiro–Wilks testing, and comparison of means was performed using Mann–Whitney U-testing for non-parametric data. The mean age at presentation with secondary orbital disease was 65 years (median 63; range 31–97 years). Most patients were white northern Europeans, but four were of Mediterranean origin, one from the Middle East, and one from North Africa. Clinical characteristics of 48 patients with orbital malignant melanoma secondary to a primary tumor elsewhere, classified by the site of primary tumor and the survival interval after presentation with orbital disease. Survival after presentation with secondary orbital melanoma in 21 patients for whom date of death is known, without other complete clinical data; classified by origin of the primary tumor. Sites of primary origin for malignant melanomas for 89 patients presenting with melanoma in the orbit. Interval from the time of diagnosis of primary melanoma to the appearance of orbital disease in 48 patients presenting with melanoma in the orbit. Patients with tumors of cutaneous or unknown origin had worst survival, conjunctival had the best, and choroidal had the second best survival (Figure 3). The

median follow-up for the 17 known living patients is 44 months range 1â€” months , suggesting a relatively good survival in this group. Kaplanâ€”Meier survival analysis for 69 patients with orbital melanoma secondary to primary disease at another site, classified by origin of the primary tumor. Survival time after presentation with orbital disease in 69 patients, as related to the interval between primary tumor diagnosis and orbital presentation. Sixteen patients survived 4 years or more after orbital diagnosis range 52â€” months , and eight are still alive surviving to-date 52â€” months ; the primary tumor was from choroid eight cases , conjunctiva four cases , skin two cases , or sinus two cases. Surgical Approaches in Secondary Orbital Melanoma Where imaging showed diffuse orbital disease, an incisional biopsy was performed without any mobilization of bone, and, where orbital disease was causing major disfigurement, the patient was later considered for palliative orbital exenteration. However, in many cases, secondary orbital melanoma formed a well-defined mass at the time of presentation, and, in such cases, the mass was excised intact through a bone-sparing anterior orbitotomy. There were two notable features in the patient group: Second, there was a group of patients with an unusually long survival after the diagnosis of melanoma recurrence within the orbit. Thirteen patients had orbital melanoma as the presenting symptom of a primary melanoma arising elsewhere; 11 of these wereâ€”somewhat predictablyâ€”ocular primary tumors with local disease progression; one primary tumor was, however, a distant cutaneous lesion, and one patient had widespread systemic disease and thus primary origin was not discernible. The reason for the long interval between primary disease and orbital recurrence in our patients is conjectural, but it might be related to immune-mediated control of tumor growth. Furthermore, melanomas showing spontaneous regression contain more tumor-specific lymphocytes than those in non-regressing tumors, and the presence of these lymphocytes portends a better prognosis 17 , High levels of immunosurveillance within the orbit might, therefore, maintain micro-metastases of primary tumor in remission for many years; later, mutations might occur in tumor-associated antigens, leading to loss of lymphocytic recognition and, thereby, loss of tumor control. Alternatively, detrimental changes in the immune system such as pregnancy, immunocompromise, or aging might lead to reduced efficiency of immune surveillance, with emergence of growth in previously well-controlled micro-metastases. Although choroidal melanoma was the commonest primary source for orbital melanoma, cutaneous melanoma is the most likely to have late orbital secondary disease. Published survival rates for melanoma within the orbit range from 6 to 20 months 10 , 13 , Our study would suggest that secondary malignant melanoma within the orbit can follow a relatively indolent course after treatment, with a survival much better than expectedâ€”thus making prognosis for this condition hard to predict. Treatment of secondary orbital melanoma remains controversial and is often palliative Surgery remains the mainstay of treatment, with local resection, debulking, or exenteration being the primary choices. Radiotherapy and chemotherapy can be considered, and their use takes into account life expectancy and the presence of other metastatic diseases e. The scenario for melanoma chemotherapy is, however, changing rapidly with the advent of immunotherapy; cutaneous and uveal melanomas are biologically distinct, and, as such, they would be expected to require distinct treatments. Immunotherapy for metastatic cutaneous melanoma markedly improves survival, with the most dramatic being ipilimumab and nivolumab combination therapy Several agents have been approved by FDA and NICE for monotherapy, while combination therapies undergo Phase III trials, but there is no evidence yet for the impact these may have in orbital metastasesâ€”a potential area for further research. By contrast, ipilimumab has demonstrated only modest benefits in treating primary uveal melanoma. There are a variety of new agents that might provide benefit in metastatic uveal melanoma; these include verteporfin previously used in wet age-related macular degeneration , arylsulfonamides, and anti-VEGF agents Arylsulfonamides such as KCN1 inhibit hypoxia-inducible factors, thereby depriving cancer cells of their ability to thrive in a hypoxic environment Clinical trials relating to these are all in early human phases but have demonstrated significant benefits in mouse models. These potential treatments of secondary orbital melanoma require further investigation, but they may herald a new era where metastatic melanoma is no longer a life-ending diagnosis. In summary, a high index of suspicion for orbital recurrence should be maintained in any patient with prior history of

melanoma, however distant the primary tumor is in site or time. Currently, surgery remains the mainstay of therapy in melanoma, but development of new immunotherapeutic agents might revolutionize therapy in the years to come. Author Contributions ARâ€™study design, data collection, data analysis, preparation of manuscript. SCâ€™data analysis, preparation of manuscript. CJâ€™data analysis, revision of manuscript. DVâ€™clinical assessment of patients, revision of manuscript. GRâ€™study design, clinical assessment of patients, data analysis, revision of manuscript. Conflict of Interest Statement The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest. Intraocular metastases from cutaneous malignant melanoma. Arch Ophthalmol

**Chapter 3 : Publications Authored by Geoffrey E Rose | PubFacts**

*Geoffrey E. Rose, David H. Verity, in Handbook of Clinical Neurology, Abstract In this chapter the presentation and management of common orbital diseases are discussed.*

Encysted foreign body including parasitic disease Lymphangioma Retained foreign body In this chapter, the acute medical management of common eyelid, periorbital and orbital inflammations is summarised. Emphasis is given throughout to the importance of avoiding empirical treatment, and management should be based on representative histopathology to avoid dangerous delays in diagnosis. Histology shows focal or diffuse inflammation which can involve the entire lid and lead to formation of localised abscesses. Treatment with topical steroid drops and oral doxycycline or lymecycline is generally effective, with topical and oral antibiotics being added where there is evidence for secondary infection; biopsy should be reserved for resistant cases. Preseptal Infections Acute staphylococcal meibomitis and bacterial infections of the lash follicles or associated glands of Zeiss or Moll present as tender localised swellings that usually resolve spontaneously or discharge; medical management in the form of topical antibiotics usually suffices, with drainage reserved for refractory cases. Acutely infected lacrimal dacryocoeles are best managed by marsupialising the dilated ductule into the conjunctival sac and evacuation of pus, this leading to rapid resolution. Actinomyces is a common cause of canaliculitis and is reliably cured with canaliculotomy and evacuation of debris and stones, antibiotic drops being largely ineffective. Meibomian ducts per se rarely become infected, causing chronic discharge of oil onto the ocular surface, and may require evacuation of debris and any associated calcific concretions. In the presence of major underlying meibomian gland dysfunction or rosacea, a prolonged 3-6 month course of oral doxycycline or lymecycline should be considered. Infections of brow hair follicles and epidermoid cysts can also lead to local abscess formation Fig. In such cases, prompt drainage of localised loculations of pus usually leads to rapid resolution. Rarely, herpes zoster can also cause orbital inflammation, this including apical involvement with visual loss. Oral corticosteroids reduce the duration of acute pain and accelerate cutaneous healing, but do not decrease the incidence of postherpetic neuralgia, and should be reserved for patients who are relatively healthy and who have no contraindication to their use. Note dependent oedema in the lower lid Necrotising Fasciitis NF Rapidly progressive periorbital inflammation with tissue necrosis strongly suggests a diagnosis of necrotising fasciitis NF and is a medical emergency Fig. A proportion of patients are diabetic or have a history of local injury, but many have no identifiable risk factors. NF carries a high risk of septicaemia, organ failure, disseminated intravascular coagulation DIC and death. The immediate management involves demarcation of the area to determine the extent of disease and its progression, very high-dose antibiotics to treat streptococcal species 3 and surgical debridement down to healthy tissues with repeat tissue excision where there is progression at any stage unless there is prompt response to initial medical treatment. The management of this emergency is shared between the ophthalmologist, internist and microbiologist, and the importance of early and aggressive therapy cannot be overstated, with these authors having treated a number of patients whose late presentation resulted in dire systemic complications and even death. Where the underlying aetiology is uncertain, tissue biopsy and discussion with the histopathologist or dermatopathologist are essential. The advice of a dermatologist should be sought in refractory cases or where there is dermatopathy elsewhere, with treatment being directed at the underlying aetiology - this typically being in the form of topical glucocorticoid or tacrolimus for severe eczema and similar systemic treatment for sarcoidosis and xanthogranuloma where there is evidence either for deeper orbital disease or peripheral involvement. Only gold members can continue reading. Log In or Register to continue Share this:

**Chapter 4 : Lymphoproliferative, Myeloproliferative, and Histiocytic Lesions of the Orbit | Ento Key**

# DOWNLOAD PDF ORBITAL DISEASE GEOFFREY E. ROSE AND DAVID H. VERITY

*Sidath E Liyanage George M Saleh Geoffrey E Rose Philip J Luthert Michele Beaconsfield David H Verity Arch Ophthalmol Jan;(1) Adnexal Service, Moorfields Eye Hospital, City Road, London EC1V 2PD, England.*

## Chapter 5 : Oscillopsia after lateral wall orbital decompression | Read by QxMD

*David H. Verity, Geoffrey E. Rose. Pages PDF. Eyelid and Lacrimal Trauma Inflammatory Adnexal Disease Orbital Ischaemia Orbital Trauma Periocular Trauma.*

## Chapter 6 : Publications Authored by David H Verity | PubFacts

*To describe the clinical characteristics of patients presenting with eyelid fistula as a complication of occult sinus disease. A retrospective review of patients presenting, to the Orbital Clinic.*

## Chapter 7 : Geoffrey Rose (ophthalmologist) - Wikipedia

*Geoffrey E. Rose, David H. Verity, in Handbook of Clinical Neurology, Orbital inflammation If the consequent rise in hydraulic pressure within the bony confines of the orbit approaches that of the arteriolar perfusion - particularly likely at the orbital apex - there follows a significant risk of permanent visual loss due to posterior.*

## Chapter 8 : - NLM Catalog Result

*Common orbital infections ~ State of the art ~ Part I Shirin Hamed-Azzam 1, Islam AlHashash 2, Daniel Briscoe 2, Geoffrey E Rose 3, David H Verity 1 1 Orbital Service, Moorfields Eye Hospital, London EC1V 2PD; St John Ophthalmic Association, London EC1M 6BB, UK 2 St John Ophthalmic Association, London EC1M 6BB, UK 3 Orbital Service, Moorfields Eye Hospital, London EC1V 2PD, UK.*

## Chapter 9 : Acute Medical Management of Non-thyroid Orbital and Eyelid Inflammation | Ento Key

*Dr. Rose is a Consultant Orbital, Lacrimal and Plastic Reconstructive Surgeon and Director of the Adnexal Service at Moorfields Eye Hospital and has published over one hundred papers and articles on adnexal disease.*