

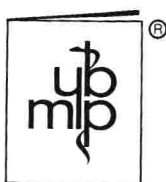


The YEAR BOOK of  
**Ophthalmology**  
1980

Edited by

**WILLIAM F. HUGHES, M.D.**

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**YEAR BOOK MEDICAL PUBLISHERS, INC.**  
CHICAGO • LONDON

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Printed in U.S.A.

Library of Congress Catalog Card Number: 58-1522

International Standard Book Number: 0-8151-4778-3



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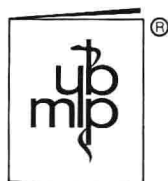


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## Current Literature Quiz

The significant advances described in this YEAR BOOK introduce new diagnostic and therapeutic procedures useful for treating conditions seen frequently in your practice. The following questionnaire will test your familiarity with the current literature. The correct answers are given in the back of the book.

1. What is the best treatment of orbital rhabdomyosarcoma in children?
2. How should one manage a capillary hemangioma of the lids in infants?
3. What is the pathophysiology of thyroid or endocrine exophthalmos?
4. Is alternate occlusion of the infant with esotropia helpful in the development of binocular vision?
5. Should we correct refractive errors surgically?
6. How successful are extended-wear contact lenses?
7. What is the best light for reading, incandescent or fluorescent?
8. How can complications from wearing contact lenses be prevented?
9. Are "blind" biopsies of conjunctiva valuable in the diagnosis of sarcoidosis?
10. Can a pinguecula be converted to a pterygium?
11. Is it worthwhile to do anaerobic cultures in the diagnosis of acute conjunctivitis?
12. How can corneal wound healing be accelerated?
13. How does the cornea defend itself against ulceration?
14. What are the causes and treatment of marginal corneal degeneration?
15. What is the best antiviral agent in the treatment of herpes simplex keratitis?
16. What are the best methods for preservation of the corneal endothelium in penetrating corneal transplantation?
17. What donor corneas should not be used in keratoplasty?
18. In what tissue of the angle of the anterior chamber lies the greatest resistance to the outflow of aqueous?

19. Should you purchase a pneumatonograph?
20. Is timolol a miracle drug?
21. Can the argon laser be used in the treatment of glaucoma?
22. What is the pathophysiology of cataract?
23. Is intraocular lens implantation here to stay?
24. Is the revival of extracapsular extraction justified?
25. Are puppies a hazard to young children? What is the ELISA test?
26. Is angiography of value in the iris and choroid?
27. Is there a crisis in the management of malignant melanomas of the choroid?
28. Are there more and more indications for the use of a vitreous cutter?
29. What is the pathophysiology and treatment of occlusion of retinal veins?
30. How do you decide to treat patients with diabetic retinopathy or vitreous hemorrhage by photocoagulation or surgery?
31. Which type of photocoagulation should be used?
32. Should central serous retinopathy, serous detachment of the retinal pigment epithelium, disciform macular degeneration, or angioid streaks be treated by photocoagulation?
33. What is the responsibility of the ophthalmologist in the management of a premature infant?
34. What method can be used to aid genetic counseling in cases of the more progressive X chromosome-linked retinitis pigmentosa vs. the recessive type?
35. Should I purchase an Octopus, Perimetron, Fieldmaster, Auto-field, Ocuplot, automatic tangent screen or Baylor Visual Fields Programmer?
36. Can the stimulation of phosphenes make the blind localize spots in the visual fields?
37. What is the difference between visually evoked field and visually evoked potentials (or VER)?
38. What are the best methods for ocular diagnosis of carotid occlusive disease?
39. What should the ophthalmologist know about the diagnosis and management of lesions affecting the optic nerve and chiasm?
40. What inborn errors of metabolism affect the eye?
41. What chromosomal errors result in ocular disorders?
42. Is there anything new on antibiotics and nonsteroidal anti-inflammatory agents?
43. Is chloroquin or hydroxychloroquin too toxic for high-dose chronic use?
44. Is the infrared CO<sub>2</sub> laser a real breakthrough?

# The Lids, Lacrimal Apparatus and Orbit

## ORBITAL RHABDOMYOSARCOMAS

The management of rhabdomyosarcomas of the orbit over the last several years can be considered one of the success stories in both ophthalmology and medicine in general. With the predilection of rhabdomyosarcomas for the orbit, orbital rhabdomyosarcomas constitute about 20% of all rhabdomyosarcomas. Whereas orbital rhabdomyosarcoma was once considered rare, it has now been established as the most common primary malignant orbital tumor of childhood and represents about 4% of all orbital tumors.

For best management, it behooves the ophthalmologist to be aware of the clinical manifestations, histopathology and electron microscopic appearance, radiologic techniques for diagnosis and urgency of a proper treatment program. A thorough knowledge of the clinical pattern and maintenance of a high index of suspicion for this diagnosis in orbital cases are the keys to successful management.

Rhabdomyosarcoma of the orbit tends to occur 75% of the time in children younger than age 10 years, with the average age of onset being just under 8 years. It is more common among males. Of interest is the fact that there is about a 20% incidence of cancer in other family members of rhabdomyosarcoma victims.

The clinical picture can reveal an aggressive, frightening, rapidly growing tumor that may show even daily changes (Fig 1). Exophthalmos may develop rapidly, with congestive signs, ptosis in about 33% and a palpable mass in about 25%, frequently located in the upper nasal quadrant. A history of trauma should not exclude rhabdomyosarcoma from the clinician's thinking, and a high index of suspicion must be maintained.

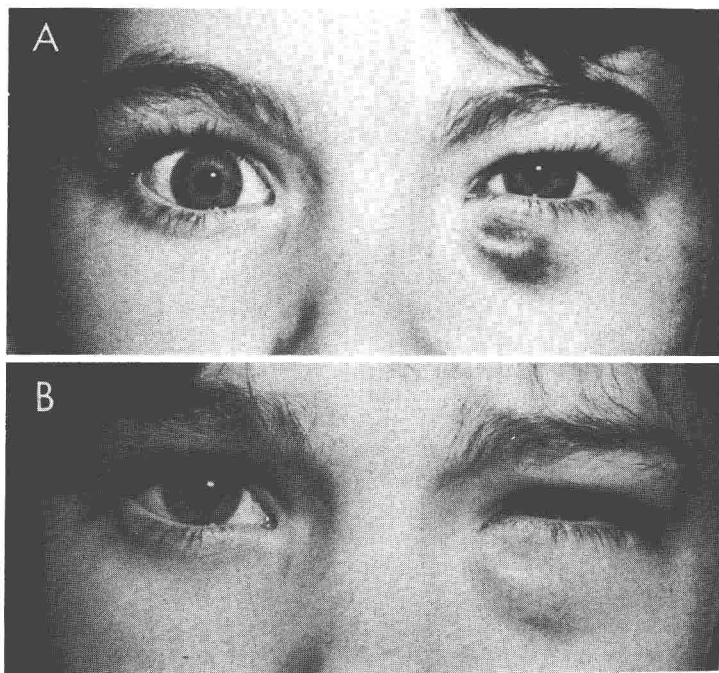


Fig 1.—Rhabdomyosarcoma of left orbit in boy, aged 8 years, with history of trauma. A, tumor below left eye with proptosis and upward displacement of globe. B, same child 6 days later, with marked increase in tumor size, proptosis and upward displacement of globe, demonstrating rapid tumor growth.

Radiologic diagnostic procedures can include ultrasonography and standard radiographic studies. The latter may not be sufficient to demonstrate bone destruction because the tumor growth often may be so rapid as to show clinical manifestations before producing bone and x-ray changes. The value of hypocyclusoidal tomography has been demonstrated to show bone destruction and its extent, which helps to determine the surgical approach and subsequent management. The information determined from computed tomography, both axial and coronal, with enhanced resolution, is a



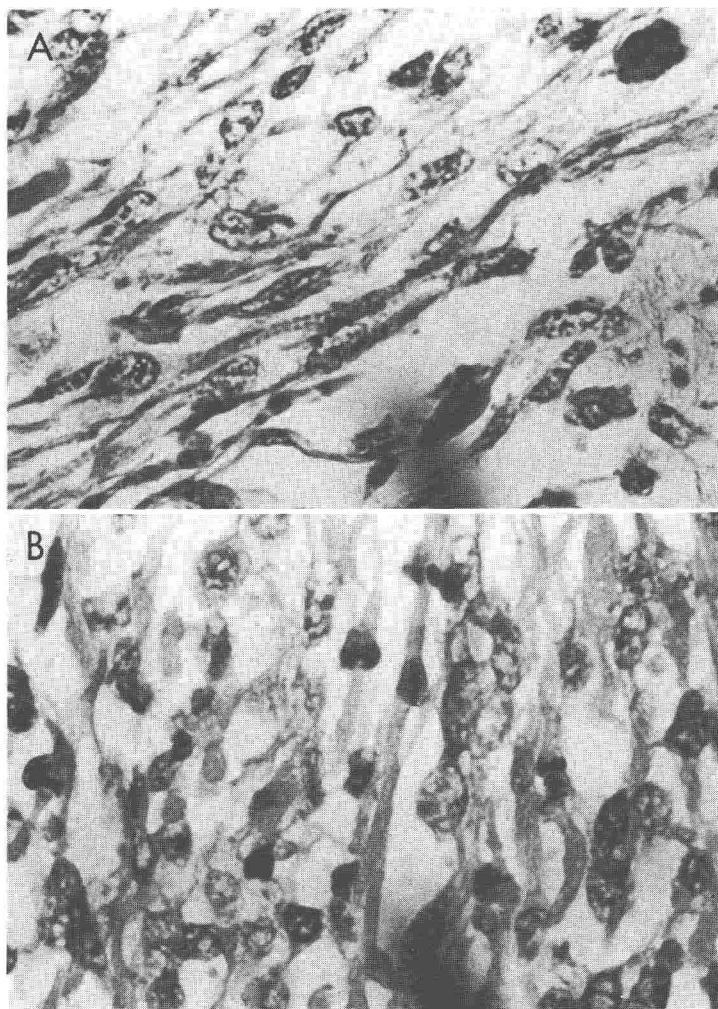


Fig 2.—Embryonal rhabdomyosarcoma. A, cytoplasm strands with prominent cross-striations are shown. Hematoxylin-eosin; reduced from  $\times 800$ . B, same specimen, showing varied and bizarre cells with tadpole shape, some multinucleated. Hematoxylin-eosin; reduced from  $\times 800$ .