Upper Lid Transconjunctival En-bloc Excision of Orbital Rhabdomyosarcoma

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INTRODUCTION & OBJECTIVES
- Describe surgical technique and essential anatomy for upper-lid transconjunctival approach
- Review literature to examine history of the approach in the orbital vault
- Describe the utility of the upper-lid transconjunctival approach

SETTING, POPULATION & STUDY DESIGN
- Tertiary Care Center
- Single Patient Case Report

Case Report:
- 9 year-old with left upper mass (Figure 1a)
- Mild hypoglobus & impaired upward gaze with no diplopia (Figure 1b)
- No change in visual acuity
- Family suspected history of trauma
- MRI showed enhancing lesion above globe
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- Continued blunt dissection with both the Wescott scissors and cotton-tipped applicators in a plane deep to the capsule of the tumor freed the anterior 2/3 of the mass leaving a lobulated, somewhat infiltrative posterior portion (Figure g – i)
- At this point the mass was reflected superiorly to continue dissection in a manner that would, 1) avoid violating the levator aponeurosis (white band) could be clearly seen and was not traumatized (Figure j – l)
- The mass had a tapered tail and was removed en-bloc (Figure i)
- The conjunctival Muller’s flap was retracted off the tumor and reflected inferiory
- As the mass was reflected inferiorly the deep aspect of the levator aponeurosis (white band) could be clearly seen and was not traumatized (Figure 4b)
- Continued blunt dissection with both the Wescott scissors and cotton-tipped applicators in a plane deep to the capsule of the tumor freed the anterior 2/3 of the mass leaving a lobulated, somewhat infiltrative posterior portion (Figure g – i)
- At this point the mass was reflected superiorly to continue dissection in a manner that would, 1) avoid violating the levator aponeurosis (white band), could be clearly seen and was not traumatized (Figure j – l)
- The mass had a tapered tail and was removed en-bloc (Figure i)
- The conjunctival Muller’s flap was retracted off the tumor and reflected inferiory

RESULTS
- Dx: Rhabdomyosarcoma
- The patient was treated uneventfully
- No post-op visual changes
- Hypoglobus and restricted upward gaze resolved
- Completed round of 32 Gy XRT in left orbital cone

DISCUSSION
The particular approach to the superior orbit would not need described. To our knowledge there is no existing report of an upper lid transconjunctival-Muller’s muscle approach to a tumor of the superior orbital vault. This anatomy made this procedure practical and feasible. The problem was to find locations where the tumor was bound to a structure that would appear that the tumor had dissected in the plane described above deep to the levator but not involved the insertion of the superior oblique (Figure 4b arrow). The orbital and periorbital anatomy can be quite a challenge to describe, dissect, and reconstruct. Through understanding this anatomy, a surgeon has open a multitude of surgical options for oculoplastic generals allowing for more effective treatment of orbital and periorbital disease.

Suggested References