New Grafting Material for Scleral Defects

Traumatic scleral rupture is possible with globe injuries. Repair of the corneoscleral shell is often required. Access to donor sclera is limited in veterinary medicine and other graft material may be needed. In this report of a dog, the repair was made using the dog’s own fascia lata as graft material. A 6-year-old spayed Pomeranian mix was presented for investigation of a dark mass caudal to the dorsomedial limbus of the left eye. The mass had appeared after a dog fight 9 months earlier but the dog had not been examined at that time. A diagnosis of traumatic scleral rupture of the left eye with uveal herniation and associated dyscoria, keratitis, and mild uveitis was made. To harvest the graft material, a proximal incision was made through the skin in the craniolateral aspect of the mid thigh. Subcutaneous tissues were bluntly dissected to reveal the fascial sheath. An elliptical piece of fascia lata (12 x 20 mm) was excised and stored in a blood-soaked swab. The defect and skin were closed and then the left eye was prepared for surgery. The conjunctiva was incised to expose the herniated uveal tissue, the fascial graft was sutured in place over the defect, and the conjunctiva was sutured over the graft. The dog was sent home with carprofen and topical atropine. Mild postoperative inflammation was managed with cyclosporine and prednisolone acetate. Three months after surgery the eye appeared functional and the graft had merged well into the surrounding sclera. The authors suggest that fascia lata fulfills the requirements for a corneoscleral tectonic grafting material and is an affordable and readily available autogenous graft.

Commentary: This report is promising in that the fascia lata appears to be an effective scaffolding graft for the repair of scleral defects. If needed, large amounts can be easily harvested. The fact that the eye was functional is good news and increases the hope that this type of surgery can be used for scleral defects.—Patricia Thombsison, DVM, MS