

## **Outcomes of nonsurgical management and efficacy of demecarium bromide treatment for primary lens instability in dogs: 34 cases (1990–2004)**

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**Objective**—To determine outcome of initial conservative management for primary lens luxation and evaluate topically administered demecarium bromide miotic treatment for prevention of anterior lens luxation, glaucoma, and vision loss in dogs.

**Design**—Retrospective case series.

**Animals**—34 dogs with primary lens luxation.

**Procedures**—Medical records of affected dogs were reviewed for times to anterior luxation, luxation of the lens in the opposite eye, development of glaucoma, and vision loss.

**Results**—At 4 to 6 weeks and at 3 months after diagnosis of lens instability (subluxation or posterior luxation), 100% (34/34 and 29/29, respectively) of conservatively managed eyes retained vision. At 1 year after diagnosis of lens instability, 80% (16/20) of conservatively managed eyes retained vision, and at 2 years after diagnosis of lens instability, 11 of 19 conservatively treated eyes retained vision. The only significant effect of miotic treatment was to delay anterior lens luxation in eyes with lens instability. Miotic treatment did not significantly affect the time from anterior lens luxation in 1 eye to anterior luxation in the other eye, time to onset of glaucoma, or time to loss of vision in eyes with an unstable lens.

**Conclusions and Clinical Relevance**—Prophylactic topically administered miotic treatment may be effective at delaying anterior luxation of an unstable lens in eyes affected by primary lens instability.

Conservative medical management of dogs with primary lens instability is a reasonable alternative to surgical removal of a subluxated or posteriorly luxated lens via intracapsular lens extraction.

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