

## Outcomes and complications associated with ventral screws, pins and cancellous bone graft for atlantoaxial instability in 9 dogs

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**Introduction:** This study was performed to describe a ventral stabilization technique with cortical screws, Kirschners wire and cancellous bone graft and to evaluate the outcomes for the surgical management of atlantoaxial instability(AAI) in nine dogs.

**Materials and Methods:** Medical records of nine dogs with AAI between January 2003 and September 2006 were reviewed. Follow-up evaluation for resolution of clinical signs and possible complications of surgery was performed in all dogs.

**Results:** The atlantoaxial joint was realigned and rigidly fixated using cortical bone screws (six dogs), K-wire (three dogs), polymethylmethacrylate (one dog), and cancellous bone graft (all of nine dogs). Seven patients recovered with no cervical pain and neurological deficits. A dog remained parietic gait and one died of respiratory complications. In complications, Kirschner wire migration was identified in two dogs, and fracture of cortical screw was identified in a dog. But there were no recurrence of clinical signs.

**Clinical relevance:** A ventral stabilization technique with cortical screws, Kirschners wire and cancellous bone graft provided an adaptable method for the correction of atlantoaxial instability.

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