

Radiographic assessment of hip joint after femoral head and neck ostectomy and its relationship with clinical findings in dogs

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Abstract

In this study, after taking radiographs from orthogonal views confirming coxo-femoral joint disease, 8 adult dogs were selected with an age range of 9 months to two years who had hip joint pain or Ortolani's Sign elicited in the clinical examination. Cases with multiple orthopedic problems in addition to coxo-femoral joint disease were excluded. After lameness test and hip joint function, they underwent femoral head and neck ostectomy. Immediately after the surgery, radiographs were taken from orthogonal views of hip joint and the list of postoperative management and physiotherapy program was submitted to the patient's owners. The study lasted up to four months after surgery. The results of the present study show that the depth of the acetabulum, in the second and fourth months after surgery, is significantly lower than before surgery. Also, the depth of the acetabular cavity in the fourth month showed a significant decrease compared to the second month, which all indicate the progress of bone remodeling in the hip joint; however, no significant reduction was observed in the diameter of the acetabular cavity compared to before surgery. At the end of the fourth month, in 87.5% of cases, there was no bone-bone contact between the femur and the acetabular cavity, and all of these cases showed very mild lameness. The only case (12.5%) that showed a bony connection between the femur and the acetabular cavity was due to inadequate resection of the femoral neck associated with moderate lameness and pain elicited in hip joint function. Revision surgery to resection of ossicles, especially in the neck region and lesser trochanter, it can improve the patient's condition. serial radiographs can be helpful in diagnosing these cases. Also, as the time length increases after FHO surgery, THR surgery becomes more difficult with bone remodeling progress.

Keywords: Dog, FHO, Acetabulum, Radiology

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