with toy and large breed dogs less than one year old have been referred to small animal clinic with lameness, pain and loss of function on hindlimb. Radiograph survey was done and revealed various changes in hip joint. Conservative and surgical treatments were carried out and followed up till two years. All dogs tolerated head and neck resection of femur. In congenital cases, weight was not as a determinant factor and there was not significant between DJD and outcome statistically, but in all congenital and traumatic cases there was no significant difference between DJD and outcome in less than 10 Kg and was statistically significant in dogs more than 10 kg. In recent study, weight and etiology were not as an important and effective factor on successful rate.

## Study on ewe fetal periostium effect on the canine humeral fracture healing

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Hard tissue and orthopedic disorders such as fractures are most common causes to refer to small animal clinics. A short bone healing period is ideal in fracture treatment. In this study rib periostium of fetus of full term pregnant ewe used as a bone-like substance, and fracture healing evaluated by radiography and pathology. In current study 12male, mixed breed and 1 year old dogs with normal clinical signs were selected. Left hand of all dogs used as control group, and right hand used as test group. All cases anesthetized and similar, 2×2 cm square defect was created in both humeral shafts in same location. Bone defect in test group filled by bone wax and sterile ewe fetal periostium and in control group filled by bone wax alone. Radiographic examination with lateral and craniocaudal positioning was performed in days: 0, 7, 14, 21, 28, 35 and 42 after operation. Finally, necropsy pathology sampling was obtained for test and control group. Callus bridge formation was seen in radiographs in 28 days after operation in test group (right humorous) and 42 days after operation in control group (left humorous). Fracture healing process in test group was more fast than control group that ewe fetal periostium was absent. Pathologically, osteocyte collection was seen in fracture site in test group.In conclusion, relative success in test group could be a result of positive effect of ewe fetal periostium that needs further controlled study for precise determination of the effect of this helpful substance.

# Surgical Treatment of thoracolumbar luxation in a Dog

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The thoracolumbar spine is the most common site for spinal fractures and luxations. Luxations occur between T11 and L6 in approximately 50% to 60% of patient with blunt spinal trauma. Luxations of the thoracolumbar spine are classified as pathologic or traumatic. Pathologic luxations generally occur when hereditary or congenital ligamentous instability decreases spinal support (e.g., atlantoaxial instability) or when bone integrity is compromised due to an underlying disease process (e.g., metabolic bone disease, neoplasia). Traumatic luxations are induced by forces resulting in severe hyperextension, hyperflexion, axial compression, and rotation; often occurring at or near the junction of a mobile and more rigid vertebral segment. A 3-year old, intact male Pekingese dog was referred to the veterinary hospital of Ferdowsi University of Mashhad with a history of falling from third floor. Clinical examination revealed luxation of thoracolumbar vertebral joint, caudal paralysis and urinary incontinence. The dog was prepared for surgical intervention. The anesthesia was intravenously induced with the combination of Diazepam, Xylazine hydrochloride and Ketamine and inhalantly maintained with halothane. A dorsal midline surgical approach was performed to access the thoracolumbar vertebral junction. As a surgical treatment the modified segmental spinal fixation by wiring central and longitudinal pins to the base of dorsal spinous processes and articular facets was performed. Afterward manual physiotherapy was done for a 6-month period. Follow-up during this time showed a progressive recovery in his hind limbs locomotion. Spinal fractures, luxations and subluxations may require surgical intervention but each case should be evaluated individually to determine which method of fixation will be beneficial and moreover the post-operative care play an important role in consequenced results.

## The Importance of identifying the radial nerve route in humerus fracture surgery of human And dog

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