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Humeral condylar fracture in dog, a case report, therapeutic complexities

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Abstract:

Case Description- An adult male dog (skye terrier breed) affiliated with the trauma history in thoracic limb elbow was referred to the Department of Veterinary Surgery and Radiology of Shahrekord University. Clinical sings included severe lameness of the involved limb, swelling and pain in the palpation and the creation of a crack in the elbow area.

Clinical Findings- In the evaluation of the region's Radiology section, the fracture of the humeral condyle and displacement of the elbow joints was determined.

Treatment and Outcome- The final treatment for surgical intervention was chosen to establish the internal fixation of fracture parts by using the transcondylar lag screw method and then using the screw and plates.

Clinical Relevance- The humeral condylar fractures in the dog is the common fracture cases because the existence supracondylar foramen in the humerus bone, renders the dog prone to such fractures. Humeral condylar fractures can be divided into lateral condylar, medial condylar and intercondylar fractures. Humeral condylar fractures may be seen in any breed of dog although spaniels are commonly affected due to their predisposition to incomplete ossification of the humeral condyle (IOHC). Dogs with a recent humeral condylar fracture present with non-weightbearing thoracic limb lameness. The diagnosis is readily made from orthogonal radiographs. To fixation the fracture parts, using the transcondylar lag screw method whit a Kirschner wire (K-wire). In the intercondylar fractures, using two plates (using a bilateral approach) is attempted to fix the fractured parts.

Key words: Fracture, Humeral Condyle, Fracture Fixation, Surgery, Arthrodesis

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Investigation of Newcastle Disease Viruses Antibody in Rural Poultries of The Northern Provinces of Iran

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Abstract:

Rural poultry like commercial poultries are susceptible to most of infectious diseases. In addition, by increasing the density of poultry farming, the probability of disease occurrence has been increased. Among the most important diseases, Newcastle disease has most of importance. Newcastle disease is endemic in Iran, and causes incidence of outbreaks among commercial and rural poultries, every year. The present study is conducted with the objective of figuring out the prevalence status and virus circulation among rural poultries of Northern provinces of Iran. In the study, 70 villages in 3 provinces (20 villages in Mazandaran, 20 villages in Golestan and 30 villages in Gilan Province) and a total of 1374 birds (600 birds in Mazandaran, 400 birds in Golestan, 374 birds in Gilan province) were sampled. A village considered as epidemiological unit. In the study, birds of 67 villages (96%) were found positive (presence of antibodies against NDV) including Golestan Province, 28 villages (93.3%), Mazandaran Province, 19 villages (95%) and 20 villages of Gilan province (100%) Moreover, out of 1374 birds, 616 (45%) of them were seropositive against NDV. According to the results of this study, the rate of titer is very high in both levels of villages and level of birds. Such high rate of titer is indicative of continuous exposures of rural poultry of the mentioned provinces to Newcastle virus and high virus circulation rate of these viruses in the studied provinces.

Key words: Antibody, Newcastle Disease, Poultry, Iran North Province, HI

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The teratogenic effects of aqueous extract of *Ephedra major* on Balb/C mouse embryos third to sixth days of pregnancy

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Abstract:

Ephedra major plant in traditional medicine is used loss weight, blood pleasure treatment, common cold and muscular weakness. But effects on the body especially during pregnancy has not been reviewed. Therefore in study the teratogenic effects of aqueous extract of *Ephedra major* on Balb/C mouse embryos third to sixth days of pregnancy has been reviewed. In this study 50 female Balb/C mice were randomly divided into 6 equal groups a control group (non-injection: 5 mice) and witess (injection of Physiology serum: 5 mice) and 4 experimental groups (each of 10 mice). A lethaldose LD_{50} was determined in condition of 3086 mg/kg.bw in vivo and selected dose for injection 500, 300 mg/kg.bw. Injection was done on the third to sixth days by enema and mice were sacrificed on fifteenth day of pregnancy. ANOVA statistical method was used and SPSS21 was used for diagramming software and to compare groups of Duncan test was used with significant condition $P<0.001$. According to the results all embryos was atrofied in 500 mg/kg.bw dose. But in 300 mg/kg. bw dose, experimental embryo mice compared with the control group and sham have abnormalities like Exancephal, Exohepatic, eye abnormal-lities, lack of limbs, asymmetry of head, bleeding in various parts of the embryos was abserved. In conclusion the use *Ephedra major* is dangerous during pregnancy and it has teratogenic effects and abortificient may be use as a contraceptive pill in future.

Keywords: *Ephedra Major*, Teratogen, Abortifacient, Mouse Embryo.

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A case report of a pneumothorax caused by a bullet in a cat and its rare side effects

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Abstract:

Chest injuries, especially tension pneumothorax, can be serious and life-threateningTension. Tension Pneumothorax is a bullet shot and a complication of the subsequent Horner syndrome is very rare. This case report records a rare case of treated tension pneumothorax and Horner's Syndrome in a cat.

A 9-year-old adult female cat, weighing 4700 grams in the initial examination shallow rapid open-mouth respiration (82 breaths min–1), tachycardia (95 beats min–1) and normal rectal temperature (37.7°C) and reduced lung auscultation sound in the right lung was referred to the clinic. On the left side of the chest, there was a small wound. After radiography, gun bullets and tension pneumothorax were reported in the chest. Depending on the diagnosis and the emergency, surgery was performed to save the animal's life. Thoracosynthesis was performed and the chest was removed from the chest then a radiographic picture was taken to ensure pneumothorax recovery. After recovery, the animal's breathing improved and the animal was discharged with antibiotics with a good general condition. In the next referral after 5 days, radiography and health status were normal, but Horner's syndrome was diagnosed as having a completely improved syndrome in the next two weeks of treatment. This study showed that the good prognosis of the Horner syndrome was in the pneumothorax trauma in the cat.

Keywords: Tension pneumothorax ,Cat, bullet injury, Horner’s Syndrome

Measurement of some heavy metals in chicken meat supplied in Isfahan province

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Abstract:

Today, one of the concerns of consumers of animal protein sources is the presence of heavy metals. The accumulation of these elements in meat and its consumption by humans can cause acute and chronic disorders in the function of vital organs. In order to estimate heavy metal cadmium, zinc and silver in meat and poultry products, 100 samples of chicken breast and chicken thigh and 100 samples of heart and liver from different sales centers were collected in Isfahan province. After tissue digestion and passing from filter paper, the elements of cadmium, zinc and silver were measured in tissue samples by an atomic absorption spectrophotometer. The results showed that the mean (± SD) of cadmium concentration in chicken thigh, breast, liver and heart samples was 0.055 ± 0.07, 0.048 ± 0.063, 0.074 ± 0.091, and 0.012 ± 0.034 mg/kg. Mean (± SD) of zinc concentration in chicken thigh, breast, liver and heart samples were 17.18 ± 9.10, 15.45 ± 7.75, 22.36 ± 10.87, and 19.55 ± 7.38 mg/kg, respectively. The amount of cadmium and zinc in all examined samples is below the international permissible limit. The mean (±SD) of silver concentration in chicken thigh, breast, liver and heart samples was 0.0080 ± 0.0094, 0.0048 ± 0.0063, 0.012 ± 0.014 and 0.0036 ± 0.0060 respectively. The amount of silver in tissue samples has not been detected in most samples. Although in the recent study, the storage of the studied elements in meat and poultry products is less than the international permissible limit, but frequent monitoring of heavy metals is necessary.

Keywords: Chicken Meat, Heavy Metals, Isfahan

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The effects of various concentrations of polygonum hydro-alcoholic extract on biological parameters and specific indices of sperm fertility in rooster

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Abstract:

Medicinal Plants with antioxidant properties can improve the quantitative and qualitative specific indices of sperm fertility and increase the hatchability rate in rooster by disturbing the production process of free radicals and neutralizing of oxidative stress. The aim of this study was to investigate the effect of various concentrations of ginger extract on biological parameters and specialized indices of sperm fertility in Golpaygani roosters. In this study, hydro-alcoholic extract of polygonum plant was prepared at concentrations of 0, 500, 1000 and 2000 mg/L and was added to drinking water of 36 adult male (32 weeks old) Golpaygani cock. After one week, the effect of different concentrations of the extract on the specific indices of sperm fertility (SMI, FSC, PMSCa, PMSCb and MSC) were evaluated and compared. The papenicular staining was also used to specific evaluation of sperm abnormalities. The use of polygonum extract significantly improved the sperm fertility indices. The most number of sperm with fast progressive movements (PMSCa), the highest levels of SMI, FSC and MSC indices, the least structural and motility abnormalities was demonstrated in 1000 and 2000 mg extract ($P \leq 0.05$). Significant differences were not observed between the two above-mentioned intermediate and high concentrations in some parameters ($P > 0.05$). There was no significant difference in above indices between medium and high concentrations of extract ($P > 0.05$). In conclusion, polygonum, due to the high amounts of antioxidant compounds, significantly increases the sperm indices and also improves the specific parameters of sperm fertility in rooster.

Keywords: polygonum, Sperm, Antioxidant compounds, Rooster, Fertility