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EVALUATION OF FACIAL PARALYSIS WITH ELECTROMYOGRAPHY THAT IS ASSOCIATED WITH HYPOTHROIDISM IN A DOG

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A 7-year-old, male, American Cocker was referred to Istanbul University, Faculty of Veterinary Medicine, Surgery Department Policlinics with imbalance, flabbiness in left cheek muscles, increase in salivation, alopecia and hyperpigmentation. The physical examination revealed left palpebral hang down and disappearance in palpebral reflex and menace response. Then, the patient was referred to Internal Medicine Department Policlinics for general condition status control and the existing skin problems. After the examination, hypothyroidism was suspected from the clinical findings. Blood was taken for complete blood count, blood biochemistry and thyroid profile (T3, T4, fT4, TSH), were detected. After the analyses, hypothyroidism and hypercholesterolemia were detected in the patient. Levothyroxine was applied in a dosage of 0,03 mg/kg q12 h with peros (PO) usage. Before starting the therapy, EMG of facial muscles showed that denerved muscles were compatible with positive sharp wave and fibrillation potentials. Cranial magnetic resonance (MR) revealed no pathology. With regularly medicine therapy, it was seen that thyroid hormones levels, cholesterole and triglyceride levels turned to normal ranges. The facial paralysis was also absolutely disappeared and the problems that were associated with skin were healed. After levothyroxine administration, EMG findings were; the muscle groups where denervation was noticed before, polyphasic re-innervation had been seen. Hypothyroidism, which is a hormonal disease, affecting so many organ systems, facial paralysis associated with nervous system can be seen. For this reason, the predisposed breeds and clinical findings of this disease must be considered. It was the first patient which had facial paralysis that was originated from hypothyroidism, diagnosed with clinical findings, laboratory methods and EMG in Turkey.

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RELATIONSHIP OF LEPTIN AND ADIPONECTIN LEVELS WITH THYROID HORMONES IN NORMAL AND OBESE DOGS

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The present study was undertaken to compare leptin, adiponectin and thyroid hormones between normal body weight and obese dogs, and to evaluate the relationship of leptin and adiponectin with thyroid function. Samples were collected from 34 dogs. Eighteen dogs were assigned to the normal body weight group (4-5/9) and sixteen dogs were assigned to the obese group (7-9/9). Serum leptin, adiponectin, thyroid stimulating hormone (TSH), total thyroxine (tT4), free thyroxine (fT4), triiodothyronine (T3), and cortisol were measured. Leptin and T3 were significantly higher in the obese group compared with the normal body weight group ($P < 0.01$ and $P < 0.05$, respectively). Serum TSH, tT4, fT4, and cortisol were not different between the normal body weight group and the obese group. Leptin and T3 correlated with body condition score ($r = 0.723$, $P < 0.01$ and $r = 0.421$, $P < 0.05$). In the normal body weight group, TSH and fT4 were related with adiponectin ($r = -0.528$, $P < 0.05$ and $r = 0.$, $P < 0.05$). In the obese group, serum cortisol correlated with leptin ($r = 0.787$, $P < 0.01$). The present findings support the suggestion that leptin is an index of obesity and that adipokines such as leptin and adiponectin are related with thyroid hormones. In addition, relationships among adipokines and thyroid hormones could be different in normal body weight and obese dogs.