

# HYPOTHYROIDISM IN A GERIATRIC DOG- A CASE REPORT

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**H**ypothyroidism is the impaired production and secretion of the thyroid hormones, which results in decreased metabolic rate in animal. This disease condition is most common endocrinopathies reported nowadays in dogs. Although, hypothyroidism has been classified into congenital and acquired types; acquired types has been reported more common in dogs. Dysfunction anywhere in hypothalamic-pituitary-axis may result in thyroid hormone deficiency but >95% of clinical cases occur due to destruction of thyroid gland itself which is actually termed as primary hypothyroidism (Merck Manual, 2010). Other cause of hypothyroidism in dogs which is called as secondary hypothyroidism is due to destruction of pituitary thyrotrophs. However, onset is variable but hypothyroidism is most common in 4-10 years of age, spayed females being more prone for the disease than intact females.

## Case Report

A 15 year old Labrador female dog was presented with a case history of consistent weight gain despite of reduced feed intake, rough hair coat, irregular non-pruritic alopecic patches, dandruff and sun seeking. Animal was dull, lethargic and was having history of difficulty in climbing stairs.

Clinical examination was done and animal was found to have normal temperature, normal urination and occasional black colour constipated faeces. Animal was found to have opacity in his left eye. Hind legs of the animal were found to be very weak to bear its weight.

Bradycardia and weak pulse rate were observed on auscultating the heart. Animal was subjected to blood analysis. Haematological analysis revealed normocytic normochromic nonregenerative anaemia and serum sample revealed hypercholesterolemia 423mg/dl (116-254mg/dl), hypoproteinaemia 121 mmol/L (140-154mmol/L) and hypoglycaemia 70 mg/dl (90-120mg/dl). ALKP (543mg/dl) and creatinine kinase (285U/L) were found to be elevated. On serum thyroid estimation T4 was found to be 0.5mg/dl below the normal range (1.5-3.5mg/dl) which confirmed hypothyroidism in the dog.

## Discussion

The hypoglycaemia was noticed which was in accordance to the report of Nelson (2009). And creatinine kinase was found to be elevated as also reported by Dixon *et al.* (1999).

The dog was subjected to drug response therapy. Synthetic L-thyroxine is the treatment of choice in all cases of hypothyroidism. The therapy was started at the dose of 0.02mg/kg twice a day.

After 4 weeks the dog was again examined clinically. There was slight reduction in weight of the animal, animal was active and hind legs were able to bear weight of the animal. After the improvement seen in the dose was tapered to 0.01mg/kg twice a day for 2 months. After 2 months animal was improved and was subjected to post-pill testing which revealed serum T4 levels within normal range after 4-6hrs of drug administration. The treatment was given for 4 months with regular monitoring after every 3 weeks interval with satisfactory result.



**Labrador retriever suffering from hypothyroidism with “tragic eye appearance “**



**Labrador retriever showing obesity**

### **References**

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