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Histomorphological study of thyroid gland in local adult male squirrel *(Sciurus anomalus)*

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ABSTRACT

The *Caucasian squirrels*, or as called Persian squirrels (*Sciurus anomalus*) are a mammal belongs to order; Rodentia; genus: Sciurus; species: *Sciurus anomalus* in the genus of Sciurus. This study was conducted to study the histomorphological and histochemical structure of thyroid gland in local adult male squirrel(*Sciurus anomalus*). Ten adult healthy male squirrels were used in this study. After euthanasia, six squirrels were used for morphological descriptions. While, the four squirrel used for histological study. Histological sections were examined by light microscope. Morphologically, thyroid gland appeared as small, bright pink structure, consist of right and left lobes, they covered by a thin capsule. The two lobes were entirely separated and not connected by an isthmus. The two lobes were located in the cranial region of trachea on its lateral sides and embedded in the cervical fascia. The histological structure of thyroid gland of squirrel revealed a common pattern of thyroid mammalian histological structure. It is covered by a thin capsule of an inner dense irregular connective tissue made of collagen and elastic fibers, spindle shape fibroblasts and thin outer layer of adipose tissue which display a clear cellular limit interpose with collagenous fibers and few elastic fibers. The lobules in both right and left lobes consisted of an aggregations of different shapes and size follicles which surrounded by a basement membrane, thin connective tissue and collagen fibers, fibroblast and many capillaries. The lining epithelium of the follicles was low simple cuboidal epithelium with spherical nuclei and some follicles were lined by simple squamous epithelium. In conclusion, this study showed that squirrel's thyroid revealed uniformly distributed of variable sized follicles with simple cuboidal epithelium lining.

Keywords: *Caucasian squirrels*, male, Histomorphology, Thyroid gland.

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