

Comparative histological and histochemical inter-species investigation of Mammalian sub mandibular salivary glands

ABSTRACT

The major and accessory sub mandibular glands were obtained from different species of rodents belong to families Muridae (*Meriones libicus*, *Mus musculus*, *Cricetulus migratorius*, *Nesokia indica*, Laboratory hamster and *Apodemus* sp.)? Dipodidae (*Alactage elater* and *Jucullus blanfordi*) and Sciuridae (*Funambulus pennanti*). The skulls of these species were separated immediately after death and fixed in buin with decalcification. Five μm sections were stained with hematoxylin-eosin and tetrachrom. Periodic acid Schiff and alcian blue (pH 1) were performed for sulfated natural mucins. Microscopic histological features, including existence of mucus and serous acini, presence of different kinds of tubules and different types of ducts as well as the histochemical characteristic features including histochemistry of different tubules and ducts in 2 different pH levels in the major and accessory sub mandibular glands in different rodents showed that the studied species proved to be different and the histological and histochemical study of sub mandibular salivary glands proved practicable with good discriminatory potential in evaluating the inter-species differences.

Keyword: Mucin; Rodents; Histology; Histochemistry; Inter-species; Sub mandibular; Salivary