

STUDI HISTOLOGI DAN DISTRIBUSI PAPILA LINGUA SUGAR GLIDER (*Petaurus breviceps*) DENGAN PEWARNAAN HEMATOKSILIN- EOSIN

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INTISARI

Sugar glider (*Petaurus breviceps*) merupakan mamalia dari famili Petauridae yang hidup di berbagai Pulau Indonesia, Australia, dan Papua New Guinea. *Sugar glider* adalah hewan omnivora dan termasuk hewan marsupial. Dalam *International Union for Conservation of Nature and Natural Resources* (IUCN) *sugar glider* tergolong kategori *Least Concern*. Studi histologi mengenai lingua hewan ini belum banyak dilakukan. Penelitian ini bertujuan untuk mengetahui histologi dan distribusi papila lingua *sugar glider*.

Penelitian ini menggunakan dua ekor *sugar glider*. *Sugar glider* dieuthanasi dengan metode anestesi klorofom. Sampel lingua diidentifikasi struktur makroanatomi, kemudian dibuat preparat histologi. Lingua dibagi menjadi 3 bagian yaitu *apex*, *corpus* dan *cauda*. Setiap bagian dibagi menjadi dua. Jaringan diproses dengan metode parafin, kemudian jaringan dipotong dengan ketebalan 8 µm. Pemotongan preparat menggunakan metode semi-serial untuk mendapatkan gambaran lingua secara menyeluruh. Pemotongan menggunakan metode 10-10-10 dan metode 5-5-5. Preparat kemudian diwarnai menggunakan hematoksin-eosin. Preparat yang telah diwarnai diamati menggunakan mikroskop cahaya, kemudian difoto menggunakan *Optilab Image Viewer*. Dilakukan perhitungan distribusi papila lingua *sugar glider* secara manual pada setiap preparat.

Anatomi lingua *sugar glider* mirip seperti mamalia pada umumnya. Epitelium dorsalis terdapat variasi papila. Tunika muskularis tersusun serabut otot skelet. Kelenjar serosa ditemukan pada apeks hingga kauda. Kelenjar mukosa dan duktus glandula Von Ebner's hanya ditemukan pada kauda. Jumlah papila ditemukan; papila filiformis berjumlah 13.511 buah, papila konikalis 4.467 buah, papila marginalis 848 buah, papila fungiformis 781 dan papila sirkumvalatae 44 buah. Apeks lingua didominasi papila filiformis; ditemukan papila konikalis, fungiformis, dan marginalis. Korpus lingua didominasi papila filiformis dan konikalis. Papila pada kauda lingua didominasi papila filiformis keratinasi pendek, dan ditemukan papila sirkumvalatae.

Kata kunci : histologi, distribusi, papila, lingua, *sugar glider*.

LINGUAL HISTOLOGICAL AND PAPILLAE DISTRIBUTION OF *SUGAR GLIDER (Petaurus breviceps)* WITH HEMATOXYLIN-EOSIN STAINING

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ABSTRACT

Sugar gliders (*Petaurus breviceps*) is a mammal of the family Petaurus living in various island of Indonesia, Australia, and Papua New Guinea. Sugar glider is an omnivore and included in marsupials. Based from the International Union for Conservation of Nature and Natural Resources (IUCN), sugar gliders belong to the category of Least Concern. Lingua histological studies on animals has not been done. This study aims to determine the lingual histology and lingual papillae distribution sugar gliders.

This study uses two sugar gliders. Euthanasia of sugar glider used chloroform anesthesia methods. Macroanatomy structures of lingua samples identified. Then made histology preparations. Lingua divided into 3 section, which are section of the apex, corpus and cauda. Each section is divided into two parts. The samples processed by paraffin method to make paraffin blocks. The paraffin blocks are cut with a thickness of 8 µm using microtome. Cutting preparations using semi-serial method to get an overview of the tongue thoroughly. Cutting with 10-10-10 and 5-5-5 method. Preparations then stained using hematoxylin-eosin. Preparations containing slides which has been dyed observed using a light microscope, and then photographed using Outilab Image Viewer. Distribution and quantity of the sugar glider lingual papillae calculated manually on each slides.

Anatomy lingua sugar glider are like mammals in general. There are variations of dorsal epithelium papillae. Tunica muscularis is composed skeletal muscle fibers. Serous gland found at the apex to the cauda. Mucous glands and Von Ebner's glands ducts are found only in the cauda. The number of papillae found; papillae filiformis amounted to 13.511 pieces, 4.467 pieces of papillae konikalis, 848 pieces of marginal papillae, 781 pieces of fungiform papillae and 44 pieces of sirkumvalatae papillae. The apex of lingua dominated by filiform papillae; conicalis, fungiform, and marginal papillae are found. The corpus of lingua dominated by filiform and conicalis papillae. On the caudal lingua, short-ceratinized filiformis papillae are dominated and circumvalatae papillae has been found.

Keywords : histology, distribution, papillae, lingua, sugar glider.