

INTISARI

STUDI HISTOLOGIS SISTEM GENITALIA BETINA *SUGAR GLIDER* (*Petaurus breviceps*) DENGAN PEWARNAAN HEMATOKSILIN-EOSIN

**Oleh
Binarta
15/377736/KH/8459**

Sugar glider (*Petaurus breviceps*) merupakan mamalia marsupial yang berasal dari Australia, Tasmania, Papua Nugini, dan beberapa kepulauan di Indonesia. Berdasarkan *International Union for Conservation of Nature and Natural Resources* (IUCN), status konservasi *sugar glider* adalah *least concern*. Informasi tentang histologi sistem genitalia betina *sugar glider* masih belum diketahui. Penelitian ini bertujuan untuk mengetahui gambaran histologis ovarium, oviduk, uterus dan vagina *sugar glider*.

Penelitian ini dilakukan dengan menggunakan satu ekor *sugar glider* betina dewasa. *Sugar glider* dieuthanasi dan diperfusi. Sampel yang digunakan adalah ovarium, oviduk, uterus dan vagina. Jaringan diproses dengan metode parafin dan dipotong dengan ketebalan 8 μm . *Slide* jaringan diwarnai dengan pewarnaan Hematoksilin-Eosin (HE). Hasil diamati dengan mikroskop dan dianalisis secara deskriptif serta diambil gambarnya menggunakan *OptiLab Viewer*.

Hasil pengamatan menunjukkan organ genitalia *sugar glider* betina terdiri dari sepasang ovarium, sepasang oviduk, sepasang uterus, sepasang vagina lateral dan satu vagina sentral. Ovarium terbagi atas korteks dan medula, pada bagian korteks dilapisi oleh epitel germinal berbentuk skuamus simpleks dan terdapat folikel primorida, folikel primer, folikel sekunder dan korpus albicans. Pada medula terdapat banyak pembuluh darah dan ditemukan adanya rete ovarii. Oviduk dibatasi oleh epitelium pseudokompleks kolumnar, tunika muskularis terdiri dari lapisan otot polos yang tebal. Uterus dibatasi epitel berbentuk kolumnar simpleks dan terdapat kelenjar uterina di lamina propria submukosa, tunika muskularis tersusun dari lapisan otot polos yang tebal. Vagina lateral dan sentral terdiri dari lamina epitelialis mukosa, lamina propria submukosa, tunika muskularis dan tunika serosa. Dibatasi oleh epitelium skuamus kompleks. Berdasarkan hasil penelitian, dapat disimpulkan bahwa *sugar glider* betina memiliki ovarium dengan epitel germinal berbentuk skuamus simpleks dan terdapat folikel dengan berbagai tahap perkembangan di bagian korteks, tipe uterus dupleks dan terdapat kelenjar uterina di lamina propria mukosa dan sepasang vagina lateral dan satu vagina sentral.

Kata kunci : *sugar glider*, histologi, organ genitalia betina, hematoksin-eosin

ABSTRACT

HISTOLOGICAL STUDIES OF FEMALE REPRODUCTIVE SYSTEM OF SUGAR GLIDER (*Petaurus breviceps*) WITH HEMATOXYLIN-EOSIN STAINING

By
Binarta
15/377736/KH/8459

Sugar gliders (*Petaurus breviceps*) are marsupials mammals from Australia, Tazmania, Papua New Guinea, and several island in Indonesia. Based on International Union for Conservation of Nature and Natural Resources (IUCN), sugar gliders are listed as least concern. The information about female reproductive system of sugar glider remains unknown. This study aim to determine the histological structure of ovaries, oviduct, uterine and vagina of sugar glider.

One adult female sugar gliders used in this study. Sugar glider were euthanized and perfused. Sample used in this study are ovaries, oviduct, uterine and vagina. Tissues were processed with paraffin method, and cut into 8 µm thickness. Preparations were stained with hematoxylin-eosin staining. The result was observed with light microscope and then photographed using OptiLab Image Viewer. The histological structure of female reproductive system was analyzed descriptively.

The result of this study indicate that female reproductive organs of sugar glider consist of a paired ovaries, oviduct, uterine, paired lateral vagina and one compartement of central vagina. Ovaries are divided into cortex and medulla. Cortex lined by squamous simplex germinal epithelium. There are primordial follicle, primary follicle, secondary follicle and corpus albicans. Rete ovarii was located in medulla and medulla are richly vascularized. Oviduct lined by stratified pseudocolumner epithelium, the muscularis layer are thick smooth muscle. The epithelium of endometrium is columner simplex and uterine glands are located in lamina propria submucosa. Myometrium formed from thick smooth muscle. Lateral and central vagina consist of epithelium, lamina propria submucosa, muscularis, and a serosa. Lined with stratified squamous epithelium. Based on this study, it can be concluded that female sugar glider has ovaries with simplex squamous germinal epithelium and cortex ovaries contains ovarian follicles in various stage of development. Uterine of sugar glider are duplex type and there are uterine glands in the lamina propria. There are a paired lateral vagina and one central vagina.

Key words : sugar glider, histology, female reproductive organs, hematoxylin-eosin