KARAKTERISTIK SITOLOGI MUKOSA SEL VAGINA DAN STATUS FAALI SELAMA SIKLUS ESTRUS PADA KAMBING SAANEN

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INTISARI

Penelitian ini untuk mengkaji karakteristik sitologi mukosa sel vagina dengan metode *vaginal smear* dan status faali selama siklus estrus pada Kambing Saanen. Penelitian ini menggunakan 6 ekor kambing Saanen betina laktasi dengan *body condition score* (BCS) 1,5-2 dan umur 1,5-3 tahun. Semua kambing yang digunakan dalam siklus estrus alami. Pengambilan sampel mukosa vagina dilakukan dalam interval 2-3 hari selama 2 siklus estrus. Pembuatan preparat *vaginal smear* menggunakan metode preparat apus dengan mengusap *epithel* vagina kemudian dilakukan pewarnaan dengan Giemsa. Parameter status fisiologis yang diukur meliputi frekuensi respirasi, frekuensi pulsus, dan temperatur rektal. Data komposisi sel superfisial, intermediet dan parabasal dianalisis menggunakan Rancangan Acak Lengkap (RAL) pola searah. Data panjang siklus estrus, dan frekuensi status faali Kambing Saanen dianalisis secara deskriptif. Hasil penelitian menunjukan pada fase proestrus didominasi oleh sel parabasal, fase estrus didominasi oleh sel superfisial, fase metestrus didominasi oleh sel intermediet, dan fase diestrus didominasi oleh sel parabasal dan intermediet. Proporsi sel parabasal pada fase proestrus yaitu 78,75±10,07%, proposi sel superfisial pada fase estrus yaitu 85,12±9,19%, proporsi sel intermediet pada fase metestrus sebesar 64,42±27,53%, dan proporsi sel parabasal dan intermediet pada fase diestrus berturut-turut 37,46±19,21% dan 57,93±19,55%. Panjang siklus estrus pada kambing Saanen berkisar 19 sampai 27 hari. Nilai rataan pada pengukuran frekuensi respirasi, frekuensi pulsus, dan temperatur rektal secara berurutan yaitu 59,92±6,36 hembusan/menit, 113,04±6,68 kali/menit, dan 39,11±0,23 ^{o}C. Disimpulkan bahwa sitologi vagina dapat digunakan untuk mengidentifikasi siklus estrus pada kambing Saanen.

Kata kunci: Sitologi Vagina, Siklus estrus, Kambing Saanen, Status faali.

CHARACTERISTICS OF VAGINAL MUCOSA CYTOLOGY CELL AND PHYSIOLOGY STATUS DURING THE ESTROUS CYCLE IN SAANEN GOATS

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ABSTRACT

This study examined the cytological characteristics of vaginal mucosa cells using the vaginal smear method and their status during the estrus cycle in Saanen goats. Six of non-pregnant female Saanen goats with a body condition score (BCS) of 1.5-2 and aged 1.5-3 years were used in this study. All goats were naturally estrus cycle. Vaginal mucosa samples were taken at intervals of 2-3 days for 2 estrus cycles. Vaginal smear preparations were made by swabbing the vaginal epithelium and staining it with 3% Giemsa, and then observed using microscope. The parameters of the physiological status included respiratory rate, pulse rate, and rectal temperature. Data on the composition of superficial, intermediate, and parabasal cells were analyzed using a one-way completely randomized design. The length of the estrus cycle and the frequency of the status were analyzed descriptively. The results showed that the proestrus phase was dominated by parabasal cells, the estrus phase was dominated by superficial cells, the metestrus phase was dominated by intermediate cells, and the diestrus phase was dominated by parabasal and intermediate cells. The proportion of parabasal cells in the proestrus phase was 78.75±10.07%, the proportion of superficial cells in the estrus phase was 85.12±9.19%, the proportion of intermediate cells in the metestrus phase was 64.42±27.53%, and the proportion of parabasal and intermediate cells in the diestrus phase were 37.46±19.21% and 57.93±19.55%, respectively. The length of the estrus cycle in Saanen goats ranges from 19 to 27 days. The average of respiratory rate, pulse rate, and rectal temperature were 59.92±6.36 breaths/minute, 113.04±6.68 beats/minute, and 39.11±0.23 °C, respectively. In conclusion, the vaginal cytology can be used to identify the estrus cycle and can be used as a tool for determining the timing of estrus in Saanen goats.

Keywords: Vaginal cytology, Estrus cycle, Saanen goats, Physiological status