

INTISARI

STUDI PARASIT GASTROINTESTINAL DAN GAMBARAN DARAH PADA GAJAH SUMATERA (*Elephas maximus sumatranus*) DI PUSAT KONSERVASI GAJAH, TAMAN NASIONAL WAYKAMBAS, PROPINSI LAMPUNG

Dwi Indah Kirjawanti
15/388338/PKH/00537

Gajah Sumatera (*Elephas maximus sumatranus*) termasuk satwa dalam Apendiks I CITES dan oleh Lembaga Konservasi Dunia atau IUCN ditetapkan dalam kategori *critically endangered*. Berkurangnya jumlah gajah karena penyusutan habitat serta pembunuhan akibat konflik dengan manusia dan perburuan untuk diambil gadingnya. Kesehatan gajah dapat dipengaruhi oleh keberadaan parasit di dalam tubuh. Parasit pada gajah Sumatera belum banyak diketahui dan diteliti. Penelitian ini bertujuan untuk mengetahui keragaman parasit gastrointestinal pada gajah Sumatera di Taman Nasional Waykambas, dan hubungannya dengan gambaran darah gajah. Sampel darah dan feses diambil dari 25 ekor gajah yang sama di Pusat Konservasi Gajah (PKG), Taman Nasional Waykambas. Pengambilan sampel darah dilakukan pada vena aurikularis, kemudian 25 sampel diperiksa darah rutin di laboratorium Rumah Sakit Mardi Waluyo, Metro. Pemeriksaan feses dilakukan dengan metode natif, metode apung, dan metode modifikasi Parfitt dan Banks. Hasil pemeriksaan diperoleh berdasarkan karakteristik morfologi telur parasit yang ditemukan di dalam feses kemudian dihubungkan dengan gambaran darah gajah. Hasil penelitian menunjukkan 25/25 (100%) terinfeksi cacing gastrointestinal. Persentase tingkat infeksi cacing dari tinggi ke rendah berturut-turut adalah 14/25 (56%) terinfeksi *Paramphistomum spp.*, 6/25 (24%) terinfeksi cacing golongan Strongyle, dan 5/25 (20%) terinfeksi campuran cacing golongan Strongyle dan *Paramphistomum spp.* Rata-rata hasil pemeriksaan darah gajah di PKG adalah jumlah sel darah putih $12,104 \pm 2,819 \times 10^3/\mu\text{l}$; jumlah sel darah merah $3,177 \pm 0,282 \times 10^6/\mu\text{l}$, kadar hemoglobin $12,96 \pm 1,008$ gr%, PCV $34,44 \pm 2,482$ gr%; MCV $108,54 \pm 3,857$ fl; MCH $40,84 \pm 1,808$ pg; MCHC $37,604 \pm 0,874$ gr%; dan trombosit $247,28 \pm 79,844 \times 10^3/\mu\text{l}$. Hasil pemeriksaan diferensial leukosit meliputi jumlah eosinofil $3 \pm 3,723$ %; basofil 0 %; netrofil *band* $0,96 \pm 1,023$ %, netrofil *segmented* $44,56 \pm 10,273$ %; limfosit $44 \pm 11,768$ %; dan monosit $5,512 \pm 3,816$ %. Hasil penelitian secara keseluruhan menunjukkan bahwa 100% gajah PKG yang diperiksa positif terinfeksi cacing gastrointestinal dan gambaran darah semua gajah yang diteliti menunjukkan nilai dalam range normal.

Kata kunci: parasit gastrointestinal, gambaran darah, gajah Sumatera, Pusat Konservasi Gajah, Taman Nasional Waykambas

ABSTRACT

GASTROINTESTINAL PARASITE STUDY AND BLOOD VALUE OF SUMATRAN ELEPHANT (*Elephas maximus sumatranus*) IN ELEPHANT CONSERVATION CENTER, WAYKAMBAS NATIONAL PARK, LAMPUNG PROVINCE

Dwi Indah Kirjawanti
15/388338/PKH/00537

The Sumatran elephant (*Elephas maximus sumatranus*) includes animals in Appendix I of CITES and by the World Conservation Institute or IUCN specified in critically endangered categories. Reduced number of elephants due to habitat depletion as well as man-made killing and hunting for tusks. Elephant health can be affected by the presence of parasites in the body. Parasites in Sumatran elephants have not been widely known and studied. This study aims to determine the diversity of gastrointestinal parasites in Sumatran elephants in Waykambas National Park and their relation with elephant blood values. Blood and fecal samples were taken from the same 25 elephants at the Elephant Conservation Center (PKG), Waykambas National Park. Blood sampling was performed on auricular vein, then 25 samples were routinely examined in Mardi Waluyo Metro hospital laboratory. Fecal examinations were done by direct smear method, floating method, and modification of Parfitt and Banks method. The results of the examination were identified based on the morphological characteristics of gastrointestinal parasite eggs then linked with elephant blood values. The results showed 25/25 (100%) elephants were infected with gastrointestinal worms. The percentage of worm infection rates from high to low was 14/25 (56%) elephant infected by *Paramphistomum spp.*, 6/25 (24%) elephant infected by Strongyle worms, and 5/25 (20%) mix infections worms Strongyle and *Paramphistomum spp.* The average of PKG elephant blood values result were white blood cell count $12,104 \pm 2,819 \times 10^3/\mu\text{l}$; red blood cell count $3,177 \pm 0,282 \times 10^6/\mu\text{l}$; hemoglobin level $12,96 \pm 1,008 \text{ gr\%}$; PCV $34,44 \pm 2,482 \text{ gr\%}$; MCV $108,54 \pm 3,857 \text{ fl}$; MCH $40.84 \pm 1.808 \text{ pg}$; MCHC $37,604 \pm 0,874 \text{ gr\%}$; and platelet $247,28 \pm 79,844 \times 10^3/\mu\text{l}$. Differential leukocytes results were eosinophils $3 \pm 3.723\%$; basophil 0% ; neutrophil band $0.96 \pm 1.023\%$, neutrophil segmented $44.56 \pm 10.273\%$; lymphocytes $44 \pm 11,768\%$; and monocytes $5.512 \pm 3.816\%$. Overall results showed that 100% of PKG elephants were positively infected with gastrointestinal worms, and blood value of all elephants showed in normal range values.

Keywords: gastrointestinal parasites, blood values, Sumatran elephants, Elephant Conservation Center, Waykambas National Park

