

ABSTRAK

JUMLAH NEUTROFIL DAN LIMFOSIT SAPI YANG DISEMBELIH DI TEMPAT PEMOTONGAN HEWAN KURBAN DI WILAYAH SLEMAN SEBAGAI INDIKATOR STRES

Rosyidatun Nur Fa'izah
NIM. 21/477317/KH/10889

Praktik penyembelihan hewan kurban di Indonesia masih banyak dilakukan dengan cara tradisional yang kemungkinan dapat menimbulkan stres akut pada hewan dan berpengaruh terhadap jumlah neutrofil, limfosit, serta rasio neutrofil dan limfosit (N/L). Penelitian ini bertujuan untuk mengevaluasi jumlah neutrofil, limfosit, dan rasio N/L pada sapi yang disembelih di tempat pemotongan hewan kurban. Penelitian ini menggunakan 15 ekor sapi kurban dengan jenis sapi Peranakan Ongole (PO), simmental PO (SimPO), dan limousin PO (LimPO) di Masjid Baiturrahim Bulusan dan Masjid Al-Azhar, Sleman, Yogyakarta. Semua sapi diamati proses *handling* dan *restraint* sebelum penyembelihan, kemudian sampel darahnya diambil sesaat setelah penyembelihan dengan cara menampung darah yang keluar dari leher menggunakan *vacutainer* EDTA. Sampel darah diperiksa jumlah neutrofil, limfosit, dan rasio N/L menggunakan *Hematology Analyzer*, kemudian datanya dianalisis secara deskriptif. Hasil penelitian menunjukkan bahwa 26,67% sapi mengalami neutrofilia (neutrofil $> 4 \times 10^9/l$), 20% mengalami limfositosis (limfosit $> 7,0 \times 10^9/l$), 20% memiliki rasio N/L di bawah batas normal (rasio N/L $< 0,5$), dan 13,33% memiliki rasio N/L diatas batas normal (rasio N/L $> 1,0$). Sebanyak 20% sapi dengan rasio N/L rendah juga menunjukkan jumlah limfosit yang tinggi. Berdasarkan penelitian ini, disimpulkan bahwa penyembelihan hewan kurban di wilayah Sleman dikategorikan baik, dengan hanya 13,33% sapi yang menunjukkan indikasi stres fisiologis berdasarkan parameter rasio N/L.

Kata kunci: *Neutrofil, Limfosit, Rasio N/L, Sapi, Stres*

ABSTRACT

NEUTROPHIL AND LYMPHOCYTE COUNTS OF SLAUGHTERED CATTLE AT SLAUGHTERHOUSES IN THE SLEMAN REGION AS STRESS INDICATORS

Rosyidatun Nur Fa'izah
NIM. 21/477317/KH/10889

The practice of slaughtering sacrificial animals in Indonesia is still widely practiced in a traditional way which may induce acute stress in animals and affect neutrophil and lymphocyte count, as well as neutrophil-to-lymphocyte ratio (N/L ratio). This study aimed to evaluate the neutrophil, lymphocyte, and N/L ratio in cattle slaughtered at sacrificial animal slaughterhouses. This study used 15 sacrificial cattle of the Peranakan Ongole (PO), Simmental PO (SimPO), and Limousin PO (LimPO) breeds at Baiturahim Mosque in Bulusan and Al-Azhar Mosque in Sleman, Yogyakarta. All cattle were observed for handling and restraint process before slaughter, then blood samples were collected immediately after slaughter by capturing blood from the neck into EDTA vacutainer tubes. The blood samples were examined for neutrophil count, lymphocyte count, and N/L ratio using Hematology Analyzer, then the data were assessed descriptively. The results showed that 26,67% of cows had neutrophilia (neutrophils $> 4 \times 10^9/l$), 20% with lymphocytosis (lymphocytes $> 7,0 \times 10^9/l$), 20% with low N/L ratios (N/L ratio $< 0,5$), and 13,33% with high N/L ratios (N/L ratio $> 1,0$). The 20% of cows with low N/L ratio also showed high lymphocyte counts. Based on this research, it can be concluded that the slaughter of sacrificial animals in the Sleman area is categorized as good, with only 13,33% of cattle showing indications of physiological stress based on the N/L ratio parameter.

Keywords: *Neutrophil, Lymphocyte, N/L Ratio, Cattle, Stress*