

## INTISARI

**Muthia Nur Liena. NIM 1191039.** Gambaran Jumlah Leukosit pada Tim Basket STIKES Nasional

Leukosit merupakan sel yang memiliki fungsi utama sebagai pertahanan melawan infeksi serta dapat melihat kekebalan tubuh dan mendeteksi potensi terjadinya alergi, karena leukosit berperan dalam sistem pertahanan tubuh. Aktivitas fisik maksimal dapat memicu terjadinya ketidakseimbangan antara produksi radikal bebas dan sistem antioksidan tubuh yang dikenal sebagai stress oksidatif. Peningkatan konsumsi oksigen berkaitan dengan meningkatnya produksi radikal bebas yang dapat menyebabkan kerusakan sel. Pada penelitian ini bertujuan untuk mengetahui gambaran kadar leukosit pada tim basket Stikes Nasional Surakarta dimana tim basket tersebut melakukan aktivitas fisik yang bisa dikategorikan aktivitas fisik berat. Penelitian ini merupakan penelitian diskriptif menggunakan teknik total sampling dengan 14 sampel darah Tim basket Stikes Nasional Surakarta yang telah menandatangani informed consent. Jumlah leukosit pada sampel darah Tim basket Stikes Nasional Surakarta diperiksa dengan alat *Hematology Analyzer*. Hasil penelitian pada 14 sampel darah yang diperiksa didapatkan 13 sampel (93%) jumlah leukosit dalam batas normal dan 1 sampel (7%) mengalami peningkatan. Kesimpulan dari penelitian ini adalah rata – rata gambaran jumlah leukosit pada Tim basket Stikes Nasional Surakarta adalah normal. Rata – rata hasil jumlah leukosit yang didapatkan adalah normal yaitu  $8 \times 10^3$  Sel/ $\mu$ l darah.

**Kata kunci :** Leukosit, Aktivitas fisik, basket

## ABSTRACT

**Muthia Nur Liena. NIM 1191039.** An Overview of the Leukocyte Count in the National STIKES Basketball Team

Leukocytes are cells that have the main function as a defense against infection and can see the body's immunity and detect the potential for allergies, because leukocytes play a role in the body's defense system. Leukocytes play a role in the body's defense system, the peripheral count can be a source of information for diagnosis and prognosis as well as a description of organ damage and recovery after exercise. Maximum physical activity can trigger an imbalance between the production of free radicals and the body's antioxidant system known as oxidative stress. Increased oxygen consumption is associated with increased production of free radicals that can cause cell damage. This study aims to determine the description of leukocyte levels in the Surakarta National Stikes basketball team where the basketball team performs physical activities that can be categorized as heavy physical activity. This study is a descriptive study using a total sampling technique with 14 blood samples from the Surakarta National Stikes basketball team who signed the informed consent. The number of leukocytes in the blood sample of the Surakarta National Stikes basketball team was examined using *Hematology Analyzer*. The result of the study on 14 samples of blood that were examined obtained 13 samples (93%) the number of leukocytes was within normal limits and 1 samples (7%) had an increase. The conclusion of this study is that the average leukocyte count in the Surakarta National Stikes basketball team is normal. The average number of leukocytes obtained is normal, namely  $8 \times 10^3$  cells/ $\mu\text{l}$  of blood.

**Keywords:** Leukocytes, physical activity, basketball