

**DIFFERENCE OF LEUKOCYTE COUNT
BETWEEN PATIENTS WITH ACUTE APPENDICITIS AND PATIENTS
WITH PERFORATED APPENDICITIS
AT DR. SOETOMO GENERAL HOSPITAL SURABAYA IN 2014**

Acute appendicitis is the most common abdominal pain at any ages. Lack of attention and diagnosis could lead to risk of perforation. Examination of blood leukocyte count is a fast and affordable laboratory examination to help diagnosing acute appendicitis and perforated appendicitis. Leukocyte count is considered to distinguish between acute appendicitis and perforated appendicitis due to different way of immune response activation in eliminating inflammation. This study aims to determine the difference of leukocyte count between patients with acute appendicitis and perforated appendicitis at Dr. Soetomo General Hospital in 2014. This was an observational analytic study. 115 samples were collected from medical records using cross sectional method. Data was explained in descriptive and analytical analysis by using Independent T-test with significance value of $p < 0,05$. Result found mean of leukocyte count in patients with acute appendicitis is 12.667 cells/ mm^3 and in patients with perforated appendicitis is 14.918 cells/ mm^3 . Incidence of appendicitis is highly found at the age between 11–20 years old with group of male patient with perforated appendicitis is more dominant. Leukocyte count is determined at cut off point of 14.500 cells / mm^3 with sensitivity of 53,4% and specificity of 64,3%. Independent T-test resulted value of $p < 0.05$. Thus there is a significant difference of increasing leukocyte count between patients with acute appendicitis and patients with perforated appendicitis.

Keywords: *Acute Appendicitis, Perforated Appendicitis, Leukocytes, Inflammatory Response*