

KADAR KREATININ, UREUM, DAN ASAM URAT
DALAM DARAH TIKUS PUTIH (*Rattus norvegicus*, Berkenhout, 1769) BETINA
DENGAN PERLAKUAN *Arthrospira maxima* Setchel et Gardner
DAN *Chlorella vulgaris* Beijerinck

Oleh:

Rohmi Salamah

INTISARI

Arthrospira maxima dan *Chlorella vulgaris* digunakan sebagai suplemen karena kandungan proteinnya yang sangat tinggi. Protein merupakan makromolekul yang memiliki gugus nitrogen. Metabolisme nitrogen menghasilkan produk akhir diantaranya kreatinin, ureum, dan asam urat. Produk akhir tersebut harus diekskresikan dari tubuh melalui ginjal. Sehingga, kadar zat tersebut dapat dijadikan sebagai indikator fungsi ginjal. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian *A. maxima* dan *C. vulgaris* terhadap fungsi ginjal setelah perlakuan selama 28 hari. Penelitian ini menggunakan hewan model *Rattus norvegicus* sebanyak 15 ekor. Hewan model dibagi menjadi 3 kelompok, yaitu kelompok kontrol, kelompok *A. maxima* dan kelompok *C. vulgaris*. Dosis *A. maxima* dan *C. vulgaris* sama yaitu 5000mg/kgBB. Pengamatan dilakukan setiap 7 hari dengan parameter kreatinin, ureum, dan asam urat dalam darah. Analisis data menggunakan uji statistik *one way* ANOVA dan uji lanjutan DMRT. Hasil penelitian menunjukkan *A. maxima* menurunkan kadar kreatinin (32%), ureum (11%) dan asam urat (3%). *C. vulgaris* menurunkan kadar kreatinin (19%), serta meningkatkan kadar ureum (11%) dan asam urat (35%).

Kata kunci: *Arthrospira maxima*, *Chlorella vulgaris*, Kreatinin, Ureum, Asam Urat

CREATININE, UREUM, AND URIC ACID LEVEL
IN FEMALE WHITE RAT BLOOD (*Rattus norvegicus*, Berkenhout, 1769)
BY *Arthrospira maxima* Setchel et Gardner AND *Chlorella vulgaris*
Beijerinck TREATMENT

By
Rohmi Salamah

ABSTRACT

Arthrospira maxima and *Chlorella vulgaris* are used as supplement as their high protein content. Protein is macromolecule that has nitrogen group. Nitrogen metabolism produces end products that must be excreted, they are creatinine, ureum, and uric acid. Thus end products are excreted through kidney, so the level in the blood can be kidney function indicator. The aim of this study was to know the effect of *A. maxima* and *C. vulgaris* on kidney function after 28 days treatment. Fifteen female wistar rats (*Rattus norvegicus*) were grouped into 3 groups which were control and treatments of *A. maxima*, and *C. vulgaris*. Each group respectively was administered by oral gavage with 0 (control) or 5000 mg/kg.bw/day of *A. maxima* and *C. vulgaris* suspended in aquadest. Observation was carried out every 7 day with creatinine, ureum, and uric acid of rat blood as parameters. One way ANOVA followed by DMRT test were used to analyze the data. *A. maxima* decreased level of creatinine (32%), ureum (11%), and uric acid (3%). *C. vulgaris* decreased creatinine level (32%), as well as increased level of ureum (11%) and uric acid (35%).

Key words : *Arthrospira maxima*, *Chlorella vulgaris*, Creatinine, Ureum, Uric acid