ABSTRAK

Bunga telang (*Clitoria ternatea* L.) diketahui memiliki kandungan antioksidan dan metabolit sekunder yang berpotensi memberikan efek nefroprotektif terhadap kerusakan ginjal akibat zat nefrotoksik. Ginjal merupakan organ vital yang berperan dalam menjaga homeostasis tubuh melalui proses filtrasi, reabsorpsi, dan sekresi pada nefron, sehingga rentan mengalami kerusakan akibat paparan zat seperti gentamisin. Gangguan fungsi ginjal dapat diketahui melalui peningkatan kadar Blood Urea Nitrogen (BUN), ureum, serta perubahan kadar albumin. Penelitian ini bertujuan untuk mengetahui efek nefroprotektif ekstrak etanol bunga telang terhadap kadar BUN, ureum, dan albumin pada tikus putih yang diinduksi gentamisin.

Penelitian ini merupakan studi eksperimental in vivo menggunakan 25 ekor tikus putih jantan yang dibagi menjadi lima kelompok, yaitu kontrol normal, kontrol negatif (gentamisin 100 mg/kgBB), serta tiga kelompok perlakuan dengan ekstrak etanol bunga telang dosis 100, 200, dan 400 mg/kgBB. Ekstraksi dilakukan menggunakan metode maserasi dengan etanol 96%. Parameter BUN, ureum, dan albumin diukur menggunakan spektrofotometri, kemudian dianalisis dengan uji One Way ANOVA. Hasil penelitian menunjukkan bahwa ekstrak etanol bunga telang mengandung alkaloid, flavonoid, saponin, tanin, dan triterpenoid serta mampu menurunkan kadar BUN secara signifikan ($p < 0,05$), sedangkan ureum dan albumin menunjukkan perbaikan namun tidak signifikan. Kesimpulannya, ekstrak etanol bunga telang berpotensi sebagai agen nefroprotektif terutama terhadap penurunan kadar BUN pada model tikus yang diinduksi gentamisin.

Kata kunci : *Bunga Telang, nefroprotektif, gentamisin, parameter ginjal.*

ABTRACT

Clitoria ternatea L. (butterfly pea flower) is known to contain antioxidant compounds and secondary metabolites that potentially exhibit nephroprotective effects against kidney damage induced by nephrotoxic agents. The kidney is a vital organ responsible for maintaining body homeostasis through filtration, reabsorption, and secretion processes in the nephron; therefore, it is highly susceptible to damage caused by exposure to agents such as gentamicin. Impaired kidney function can be indicated by increased levels of Blood Urea Nitrogen (BUN), urea, and changes in albumin levels. This study aimed to evaluate the nephroprotective effect of ethanol extract of butterfly pea flowers on BUN, urea, and albumin levels in gentamicin-induced rats.

This study was an in vivo experimental design using 25 male white rats divided into five groups: normal control, negative control (gentamicin 100 mg/kgBW), and three treatment groups receiving ethanol extract of butterfly pea flower at doses of 100, 200, and 400 mg/kgBW alongside gentamicin administration. The extraction was performed using maceration with 96% ethanol. BUN, urea, and albumin levels were measured using spectrophotometry and analyzed using One Way ANOVA. The results showed that the ethanol extract of butterfly pea flower contained alkaloids, flavonoids, saponins, tannins, and triterpenoids, and significantly reduced BUN levels ($p < 0.05$), while urea and albumin showed improvement but were not statistically significant. In conclusion, ethanol extract of butterfly pea flower has potential nephroprotective effects, particularly in reducing BUN levels in gentamicin-induced rat models.

Keywords: *Butterfly pea flower, nephroprotective, gentamicin, renal parameters.*