

ABSTRACT

THE EFFECT OF ORAL HERBICIDE PARAQUAT DICHLORIDE TO KIDNEY HISTHOPATHOLOGY IN MALE RATS (*Rattus norvegicus*) *Sprague dawley* STRAIN

By

DIAH SEPTIA LIANTARI

Herbicide is one of chemical material which is used by farmers to inhibit and kill weeds. Nowadays, the use of herbicide is increasing. But, the use of herbicide sometimes doesn't appropriate to the procedure so it causes adverse effect in human. The exposure of herbicide paraquat dichloride give effects to human organs such as lung, kidney, heart, liver, muscle, spleen, skin, eyes, and brain. In kidney, it damage both glomerulus and renal tubules. The purpose of this study is to determine the effect of oral herbicide paraquat dichloride to kidney histhopathology in male rats (*Rattus norvegicus*) *Sprague dawley* strain. In this study, 25 male rats (*Rattus norvegicus*) *Sprague dawley* strain about 8–10 weeks are divided randomly into 5 group and treated for 2 days. K1 is given aquadest, K2, K3, K4, K5 is given herbicide paraquat dichloride 25 mg/kgBB, 50 mg/kgBB, 100 mg/kgBB, and 200 mg/kgBB. The results showed that the average number of kidney damage K1:0, K2:1,8, K3:2,0, K4:3,6, K5:4,4. In Kruskal Wallis test found a significant difference ($p < 0,05$). There is an effect of oral herbicide paraquat dichloride to kidney histhopathology in male rats (*Rattus novergicus*) *Sprague dawley* strain.

Key words: herbicide paraquat dichloride, kidney histophatology, multilevel dose.