ABSTRACT

THE INFLUENCE EFFECT KIDNEY HISTOPATHOLOGY of MAHKOTA DEWA (*Phaleria macrocarpa*) FRUIT EXTRACT on RIFAMPICIN in MALE SPRAGUE DAWLEY ALBINO RATS (*Rattus norvegicus*)

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Rifampicin is one of the tuberculosis drug induced kidney disease, such as acute kidney disease, acute tubular necrosis, acute tubulointertitial nephritis, and chronic kidney disease. Mahkota dewa (*Phaleria macrocarpa*) is one of plant which is often used as treatment to cure various disease such as heart disease, diabetes, liver, rheumatism, gout, cancer, and kidney. Flavonoid in mahkota dewa is considered influence effect kidney disease on rifampicin induced.

The aim of this study was to investigate the influence effect of mahkota dewa on rifampicin-induced rat kidney disease. The experimental used randomized controlled design on 25 rats devided into five groups, group 1: control; group 2: rifampicin; group 3,4, and 5: mahkota dewa + rifampicin. Rifampicin 1 g/kg b.wt was given orally to group 2,3,4, and 5 for 8 days. Mahkota dewa and rifampicin groups were given mahkota dewa at a dose 7,56 mg/100g b.wt, 15,12 mg/100g b.wt, and 30,24 mg/100g b. wt orally at 2 hours prior to rifampicin administration.

Kidney sample were taken for histopathology examination. The results show that rifampicin induced acute tubulointertitial nephritis. Group 3,4, and 5 show significantly decreased acute tubulointertitial nephritis in Mann-Whitney test ($p<0,050$). The improvement was prominent in the group 5. It could be conclude that mahkota dewa has the influence effect on rat histopathology kidney disease induced rifampicin.

Key word: Kidney histopathology, *Phaleria macrocarpa*, mahkota dewa, rifampicin.