ABSTRACT

TOXIC MARKER COMPOUND AS THE CHROMATOGRAPHY PROFILE RESULT of SEVERAL EXTRACTED *Curcuma aeruginosa* TOWARD THE FIGURE of HISPATHOLOGY HEPATOCYTE of MICE

The purpose of this research was to find out the toxic compound of *Curcuma aeruginosa* that has influence in the occurence of karyopicnotis, karyorhexis, karyolysis, apoptosis, and PARP-1 expression on hepatocyte cells of male mice as toxic marker compound in five different preparation of *Curcuma aeruginosa*.

The research used 88 male mice Balb C with 2 months old and their weight 25-30 g that were divided into 10 treatment groups (given extracted chloroform, extracted methanol, essential oil, infusion and squeezed curcuma) and 1 control group. Each treatment groups was given 2 doses, 10 mg and 15 mg per 25 g body weight, whereas 1 control group was given CMCNa + aquadest. Treatment was given once a day for 10 days. On day eleventh, mice were sacrified, the liver of mice was taken to histopathological stydy by using HE staining, *Apoptaq Detection Kit,* and immunofluorescence. Curcuma rhizome compound was analyzed by using GC/MS. Data were analyzed by using MANOVA factorial and be continued by using oneway anova, and PLS to determine what compounds influenced hepatocyte.

The results showed that 15 mg of infusion caused the highest karyorhexis with the average of 49.66%. By giving extracted chloroform 15 mg per 25 body weight caused the highest karyolysis and karyopicnotis with the average subsequently 56.31% and 10.61% (α=0.05). By giving extracted chloroform 10 mg per 25 body weight caused the highest apoptosis with the average of 1.49% and 1.33% for the 15 mg dosage (α=0.05). By giving essential oil 15 mg per 25 gram body weight caused the highest expression of PARP-1 with the average of 3369.77 (α=0.05).

In conclusion, the 10 mg squeezed curcuma per 25 g body weight was safe to be used in mice.

Keywords : Karyopicnosis, Karyorhexis, Karyolysis, Apoptosis and Expression of PARP-1.