

CONCLUSIONS

The phytochemical compounds of alkaloids, terpenoids, essential oils phenols and flavonoids present in the leaves and rhizome extract of *Tacca integrifolia* were separated using Thin Layer Chromatography (TLC) and Column Chromatography (CC) and detected with chemical reagents. While the presence of 2(3,4-dihydroxyphenyl)-7-hydroxy-5-benzenepropanoic acid, proanthocyanidin, proanthocyanidin trimer, proanthocyanidin trimer and isomer, 1,3,5-tricaffeolquinic acid, 3,4,5-tricaffeolquinic acid, *p* hydroxybenzoic acid, 3 caffeolquinic acid, dicaffeolquinic acid conjugate, isoflavone glycoside, quinic acid, phenolic acid conjugate, protocatechuic acid, gypenoside, and triterpenoid saponin were determined with Liquid Chromatography Mass Spectrometer tandem mass spectrometer (LCMS/MS). The total phenol contents showed that water extract from leaves and rhizome contained the highest phenol content while total flavonoids content was highest in petroleum ether leaves extract and chloroform rhizome extract. The rhizome methanol extract of *Tacca integrifolia* has the highest ACE inhibitors. The isolated compound from rhizome hexane extract E3 showed the highest ACE inhibitions. The water extract from both leaves and rhizome of *Tacca integrifolia* showed significant reducing of blood pressure on spontaneously hypertensive rats during 28 days experiment. The water extract from rhizome showed the less toxicity with Brine Shrimp Lethality Assay and showed no toxic effect on Spontaneously Hypertensive Rats (SHR). In the antioxidant assay, methanol leaves extract showed highest in DPPH radical scavenging activity while chloroform leaves and rhizome extract showed highest Ferric Reducing Power compared to other extract from leaves and rhizome of *Tacca integrifolia*. The chloroform leaves extract showed highest chelating activity with IC₅₀ 1.98mg/ml while water rhizome extract give a highest chelating activity with IC₅₀

3.2mg/ml. The antihypertension and antioxidant properties were due to presence of chemical compounds that has been detected in TLC and LCMS/MS. However, further research of its chemical properties as well as its medicinal value need to be investigated in order to explain its mechanism action of antihypertension. This will provide scientific evidence to support the traditional uses of *Tacca integrifolia* for high blood pressure treatment. Thus, it will contribute to pharmaceutical industry and human health.