ABSTRACT

ACUTE TOXICITY TESTS OF WATER EXTRACTS OF BARK FRANGIPANI 
(Plumeria rubra) ON BALB/C MICE

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Background: Traditional medicine has been one of the methods of therapy which is widely used in Indonesia. There are a lot of plants used for medicine therapy. One of them is Plumeria rubra. Plumeria rubra has a lot of benefits for cure, such as : antipiretic, antiinflammation, and analgesic. Part of the plant which is taken for cure is the stem bark. For that purpose, it is being cleaned and boiled for a few minutes. The boiled water is drunk for cure the disease. People believe in the effectiveness of boiled water from Plumeria rubra to treat some diseases.

Objectives: To study the acute toxicity of water extracts of Plumeria rubra on balb/c mice.

Methods: This study was an experimental research conducted in Laboratory of Pharmacology medicine in Airlangga University School of medicine. The subject used was 28 balb/c mice. The bark of Plumeria rubra was mashed and boiled in some different concentrations. Twenty eight male balb/c mice were randomly divided into 4 groups. The control group was given aquadest and the treatment groups were given the water extract of stem bark by oral galvage. The concentrations each group was 2.5%, 10%, and 40%. The toxicity effect was examined 72 hours after treatment.

Result: There was no death among the mice which had been given each doses of water extract of Plumeria rubra.

Conclusion: Based on this study, bark of the Plumeria rubra has no acute toxicity for medicine therapy.

Keywords: Plumeria rubra, water extract root, mice balb/c