

## **PG-O 11: ACUTE ORAL TOXICITY OF METHANOL SEED EXTRACT OF GLYCINE MAX (L.) MER DETAM I AND II VARIETIES IN MICE**

Ridho Islamie\*, Rika Yulia, Rizki Septiana, and Sofiyani Astuti

*\*Faculty of Pharmacy, Department of Clinical and Community Pharmacy, University of Surabaya,  
Indonesia.*

\*Corresponding author: Ridho Islamie, (phone) +6282120111607, (fax) +62312981111,  
ridhoislamie@staff.ubaya.ac.id

**Keywords:** *Glycine max*, detam I, detam II, methanol extract, acute oral toxicity

The previous study has shown that soybean seeds (*Glycine max* (L.) Merr) detam I and detam II varieties have antioxidant activity. The purpose of this research was to evaluate the acute oral toxicity of the methanolic extract of *Glycine max* (L.) Merr from both of these varieties. The test was conducted in Swiss Webster mice using the conventional method. Each extract was tested using twenty-five mice and divided into 5 groups, namely control group and four test groups, each given the extract at 78 mg/kg body weight (b.w), 312.5 mg/kg b.w, 1250 mg/kg b.w and 5000 mg/kg b.w, respectively. The mice in all groups were observed for behavioral pattern, physical condition, body weight, organ to body weight ratio, organ histology, and mortality. All of the parameters among experimental groups were comparable. The LD50 of each extract in mice were determined to be greater than 5000 mg/kg b.w, and there were no signs of toxicity and mortality after the administration of each extract for 14 days. All of the test animals did not indicate any change in behavioral pattern and physical conditions. Also, there were no any significant differences ( $p>0.05$ ) observed in the body weight and organ to body weight ratio. There was no abnormality in histopathological examination on the liver between control and test groups. Results of the present study suggest that the methanolic extract of soybean seeds (*Glycine max* (L.) Merr) detam I and II varieties are safe after single administration at high dose.