

Thesis Title **Antiepileptic Effect of *Cassia tora* Linn. Seeds.**
Name Suparat Chanluang
Degree Master of Science (Pharmacy)
Thesis Supervisory Committee
 Chuthamane Suthisisang, Ph.D. (Pharmacology)
 Rungravi Temsiririrkkul, M.Sc. (Pharmacy)
Date of Graduation 24 August B.E. 2538 (1995)

ABSTRACT

The assessment of antiepileptic activity in *Cassia tora* Linn. seeds extract was performed in Swiss Albino mice by using epileptic model as the following: 1. Pentylenetetrazol (PTZ) latency test, 2. PTZ threshold test, 3. Strychnine model and 4. Maximal electroshock (MES) model. The various fractions of *Cassia tora* Linn. seeds extract namely fraction A (dry powder from water extraction), fraction B (acetone : water 95 : 5 extraction of fraction A), fraction C (residual from acetone : water 95 : 5 extraction of fraction A) and fraction D (methanol extraction of the residual from fraction A) were tested for antiepileptic activity.

The results revealed that fraction A significantly increased the seizure threshold starting with the dose of 400 mg/kg ($p < 0.05$). The peak effect of fraction A was at 45 minutes and the duration of action of 120-240 minutes. By using PTZ latency test, it was formed that both fraction A and fraction B augmented seizure latency, reduced number of mice developed tonic-clonic convulsion and significantly prevent mice death when compared to control group ($p < 0.05$, 0.0001). This prevention effect was not significantly different from

that of sodium valproate ($p < 0.0001$), whereas phenytoin sodium did not exhibit anticonvulsant effect in this model.

In strychnine model, fraction A and fraction B were significantly effective in preventing tonic-convulsion and this effect was comparable to that effect of sodium valproate. In addition, fraction A and fraction B also prevented mice from tonic-hindlimb convulsion in MES latency test. Phenytoin sodium showed antiepileptic activity only in MES latency test, whereas fraction C and fraction D were not active in all models.

The results from this experiment demonstrated that water extract of *Cassia tora* Linn. seeds has antiepileptic activity, thus further study to verify the active moiety and the mechanism of action should be performed.