

KEY WORD : Curcuma comosa Roxb. /INTACT RAT UTERUS /ISOLATED RAT UTERUS
ANUGOOL SAWASDIPANICH : EFFECTS OF ETHANOL EXTRACT FROM
Curcuma comosa Roxb. ON THE CONTRACTION OF INTACT AND ISOLATED
RAT UTERUS. THESIS ADVISOR : ASSO. PROF. PRASAN DHUMMA-UPAKORN
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Curcuma comosa Roxb. , a native medicinal herb of Thailand ,
has been used for treatment of uterine disorder. The effects
of 95 % ethanolic extract from rhizome on the contraction of intact
and isolated rat uterus were investigated. The results of isolated
rat uterus showed that both 5 and 10 $\mu\text{g./ml.}$ of this extract reduced
contraction induced by oxytocin 5×10^{-4} i.u./ml. , Ach 1×10^{-6} M. ,
5-HT 5×10^{-6} M. and KCl 50 mM. in De Jalon solution in a dose -
dependent manner and 10 $\mu\text{g./ml.}$ of this extract also reduced
contraction induced by oxytocin 1×10^{-2} i.u./ml. , vanadate 1×10^{-4} M.
and PGF_{20C} 1×10^{-6} M. in Ca^{2+} - free Locke Ringer solution with EGTA.
In anesthetized rat , intraperitoneal injection of 0.5 g./kg. of this
extract also markedly reduced uterine contraction stimulated by
intraperitoneal injection of 1 i.u./kg. oxytocin. These results
indicate that this extract possesses tocolytic activity which may not
mediated via specific receptor. Although several mechanisms are
possible but presumably its inhibitory effect are mainly due to
interference with Ca^{2+} movement through membrane calcium channels.