

## C875458 : MAJOR PHARMACOLOGY

KEY WORD: CAPSAICIN / AMITRIPTYLINE / FLUOXETINE / ISOLATED RAT ATRIA

THANES FUANGFOO : EFFECT OF CAPSAICIN WITH AMITRIPTYLINE OR FLUOXETINE ON THE ISOLATED RIGHT ATRIAL RATE AND LEFT ATRIAL CONTRACTILITY OF RATS. THESIS  
ADVISOR : ASSO. PRO. PRASAN DHUMMA-UPAKORN, Ph.D. 88 pp. ISBN 974 - 636 - 562 - 2 .

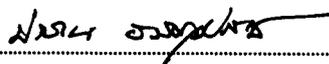
Study the effects of capsaicin ( $5 \times 10^{-6}$  M) amitriptyline ( $1 \times 10^{-6}$  M) and fluoxetine ( $1 \times 10^{-6}$  M) upon the isolated right atrial rate and left atrial contractile force of rats. Capsaicin initially increased (1-5 min) the rate and contractile force followed by a slight reduction nearly control within 10-30 minute after drug administration. Repeated administration of capsaicin did not show initially increased but slightly reduced on rate without significantly change on contractile force. Amitriptyline decreased rate but not affect on contractile force, while amitriptyline produced arrhythmias in 25% (2/8) of the number of left atria. Fluoxetine produced slightly decrease on both rate and force of atria without arrhythmias during 5-30 minute. Administration of capsaicin 5 minute after amitriptyline or fluoxetine pretreatment, amitriptyline potentiated initially effect of capsaicin on both rate and contractile force and produced arrhythmias in 85.71% (6/7) of the number of left atria. Fluoxetine potentiated effects of capsaicin on initially increased rate and contractile force without arrhythmias. Propranolol ( $2 \times 10^{-6}$  M) completely antagonized potentiation effect on both rate and force of capsaicin with amitriptyline, while propranolol prevented induction of arrhythmias in these experiment. Propranolol reduced potentiation effect of capsaicin with fluoxetine. The results from these experiment suggested that the indirect effect of capsaicin on cardioactivity involved releasing of norepinephrine and serotonin. Direct effect of amitriptyline and fluoxetine depressed both rate and force. Thus, heavy chilli consumption could induce the side effect of amitriptyline and fluoxetine. Propranolol can reduce or antagonized potentiation effect of capsaicin with amitriptyline or fluoxetine but it could potentiat direct depression effect of capsaicin amitriptyline and fluoxetine.

ภาควิชา..... เกษศาสตร์

สาขาวิชา.....

ปีการศึกษา..... 2539

ลายมือชื่อนิสิต..... 

ลายมือชื่ออาจารย์ที่ปรึกษา..... 

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม.....