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SUSTAINED RELEASE THEOPHYLLINE TABLETS PREPARED FROM
THEOPHYLLINE GRANULES COATED WITH ETHYLCELLULOSE

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สุคาร์ตัน เอี่ยมตระการ: ยาเม็ดธีโอฟิลีนชนิดออกฤทธิ์นาน ซึ่งเตรียมจากแกรนูลธีโอฟิลีนเคลือบด้วยเอธิลเซลลูโลส (SUSTAINED RELEASE THEOPHYLLINE TABLETS PREPARED FROM THEOPHYLLINE GRANULES COATED WITH ETHYLCELLULOSE) อ.ที่ปรึกษา: ผศ.ดร. พจน์ กุลวานิช, 204 หน้า ISBN 974-584-131-5

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Theophylline granules coated with ethylcellulose were prepared using fluidized bed technique. Sustained release characteristics of the coated granules and the tablets prepared from coated granules were evaluated. The release rate of the drug from the coated granules and the tablets decreased when increasing the amount of ethylcellulose coating. Type of fillers employed in preparing of the theophylline granules were found to have the effect on drug release. Incorporation of disintegrant in the tablet formulation produced the faster drug dissolution. Unpredictable alteration of release profiles were observed when varying the compressional force used in tableting process.

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Abbreviations

bar	kg/cm ²
°C	degree celsius
cm	centimeter
g	gram
Hcl	Hydrochloric acid
hr	hour
lbs	pounds
mg	milligram
min	minute
ml	milliliter
nm	nanometer
N	normal
NaOH	Sodium hydroxide
PVP	Polyvinylpyrrolidone
SEM	Scanning Electron Microscope
SD	Standard deviation
UV	ultraviolet
μm	micrometer