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DEVELOPMENT OF TABLET MANUFACTURE METHOD OF  
ERGOLOID MESYLATE BY SOLID DISPERSIONS



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พิมพ์ต้นฉบับบทคัดย่อวิทยานิพนธ์ภายในกรอบสี่เหลี่ยมนี้เพียงแผ่นเดียว

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การศึกษาคูณสมบัติการละลายของเออร์โกลอย มีซัยเลท ที่เตรียมเป็นโซลิดคิสเพอร์ชันจากวิธี  
ระเหยร่วม (COEVAPORATE) โดยใช้ตัวพาดังนี้ PEG 4000, PEG 6000, PVP K-30, PVP K-90,  
POLOXAMER 188 และส่วนผสมของ 3% POLOXAMER กับ PVP K-30 อัตราส่วนของตัวยา : ตัวพาดที่ใช้  
ในการศึกษา คือ 1:1, 1:3, 1:5 และ 1:7 จากการทดลองพบว่า อัตราการละลายของเออร์โกลอย  
มีซัยเลท ของโซลิดคิสเพอร์ชันจะสูงกว่าตัวยาเดี่ยวและของผสม (PHYSICAL MIXTURE) ที่ใช้ตัวพาดชนิด  
เดียวกัน ระบบที่ให้อัตราการละลายตัวยาสูงสุด คือ ระบบของ POLOXAMER 188 รองลงมาคือ ระบบที่  
ใช้ POLOXAMER ผสมกับ PVP K-30, PVP และ PEG ตามลำดับ ในระบบของ PVP และ PEG นั้น  
พบว่า อัตราการละลายจะเพิ่มขึ้นเมื่อน้ำหนักในโมเลกุลลดลง นอกจากนี้ยังพบอีกว่า เมื่ออัตราส่วนของ  
ตัวพาด : ตัวยาสูงขึ้น จะทำให้อัตราการละลายของตัวยาเพิ่มขึ้นด้วย

เมื่อนำโซลิดคิสเพอร์ชัน ซึ่งใช้ PVP K-30 และ POLOXAMER 188 เป็นตัวพามาเตรียมยาเม็ด  
โดยใช้วิธีตอกโดยตรง อัตราการละลายของยาเม็ดที่ผลิตด้วยวิธีนี้มีอัตราการละลายเร็วกว่ายาเม็ดที่เตรียม  
โดยวิธีทำแกรนูลแบบเปียก และวิธีตอกโดยตรง ซึ่งใช้กันโดยทั่ว ๆ ไป



ศูนย์วิทยุทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

ภาควิชา ..... เภสัชอุตสาหกรรม  
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ลายมือชื่อนิสิต พระวัฒน์ ทองคำ  
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ลายมือชื่ออาจารย์ที่ปรึกษาร่วม .....

พิมพ์ต้นฉบับบทคัดย่อวิทยานิพนธ์ภายในกรอบสี่เหลี่ยมนี้เพียงแผ่นเดียว

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The dissolution characteristics of ergoloid mesylate from its coevaporates using PEG 4000, PEG 6000, PVP K-30, PVP K-90, poloxamer 188 and a mixture of 3% poloxamer 188 in PVP K-30 as a carriers were investigated. The solid dispersions of drug and carriers were prepared in the ratio of 1:1, 1:3, 1:5, 1:7. A dramatic increase in the dissolution rate of ergoloid mesylate was attained as compared with pure drug and corresponding physical mixtures. Poloxamer systems produced the fastest dissolution rate of the drug. The dissolution rate of the drug increased as the ratio of carrier to drug was increased. Drug-PVP coevaporates dissolved at a faster rate than did drug-PEG systems. The release of ergoloid mesylate slightly increased as the molecular weight of PVP and PEG decreased. The combination of PVP K-30 and 3% poloxamer 188 as carriers yielded more rapid dissolution of ergoloid mesylate than PVP K-30 alone.

Solid dispersions of PVP K-30 and poloxamer 188 systems were used to manufacture tablets by direct compression method. The tablets of this type exhibited faster dissolution rate of the drug when compared with the tablets prepared by conventional direct compression and wet granulation methods.

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ลายมือชื่อนิสิต .....  
ลายมือชื่ออาจารย์ที่ปรึกษา .....  
ลายมือชื่ออาจารย์ที่ปรึกษาร่วม .....



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