



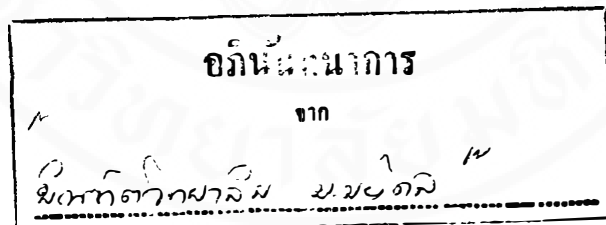
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UTERINE MICROCIRCULATION IN COMMON TREE SHREW AS REVEALED BY
SCANNING ELECTRON MICROSCOPY

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สแกนยังพบว่าพื้นผิวของเยื่อหุ้มมดลูกปกคลุมด้วยเซลล์ทรงแท่ง (simple columnar cells) 2 ชนิด คือ เซลล์ที่มีขนยาว (ciliated cell) และเซลล์ที่มีขนเล็ก ๆ (microvillous) เซลล์ที่มีขนยาวมักพบบริเวณใกล้รูเปิดของต่อมของมดลูก แต่จะพบเซลล์นี้น้อยมากบริเวณ antimesometrial border และตรงกลางของปีกมดลูก ผลการศึกษาในครั้งนี้ทำให้ทราบว่ามดลูกของกระแตมีลักษณะโครงสร้างที่อยู่ระหว่าง nonprimate และ primate species แม้ว่าไม่ได้ทำการศึกษาถึงความสัมพันธ์ระบบวงจรทางเพศกับหลอดเลือดที่มาเลี้ยงมดลูกของกระแต แต่ก็คาดได้ว่ารูปแบบและลักษณะโครงสร้างของหลอดเลือดฝอยที่มาเลี้ยงชั้นเยื่อหุ้มมดลูก จะมีความหนาแน่นและรูปแบบของหลอดเลือดที่ต่างกัน ภายใต้การเปลี่ยนแปลงของฮอร์โมน estrogen และ progesterone

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 Shrew as Revealed by Scanning Electron
 Microscopy

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Abstract

The microvasculature of the common tree shrew uterus has been studied using vascular corrosion cast technique/ SEM with complementary application of routine paraffin technique and conventional SEM. It is found that the arterial blood supply to the common tree shrew uterus was from two main sources, the uterine and ovarian arteries forming utero-ovarian anastomosis which gives rise to the segmental arteries. The segmental artery takes a tortuous course before giving rise to arterial arcades and arterial networks. It also gives off branches running dorsally and ventrally around the uterus being the circumferential arteries which anastomose each other at the antimesometrial border and gives off radial branches to supply the endometrium. Before reaching the

endometrium, the radial artery usually gives off fine branches coursing circularly to form the incomplete circle surrounding the endometrium, and finally become the subepithelial capillary plexus. The capillaries in the endometrium and myometrium drain the venous blood into the circumferential veins before becoming larger veins called the segmental veins. With conventional SEM, it is found that the endometrial surface is covered with two types of simple columnar cells, the ciliated cells and microvillous cells. Ciliated cells are oftenly located near the ostia of the uterine glands but very few of them are found along the mesometrial as well as antimesometrial borders or middle portion of the uterine horns. The tree shrew uterus seems to exhibit morphological link between nonprimate and primate species. Eventhough, uterine vasculature of common tree shrew has not been studied in relation to the sexual cycle, it is expected that the density and the pattern of endometrial vascular supply are varied depending on the estrogen and progesterone levels.