關於二三 *Non-Steroid Hormones* 之化學與生理作用

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OBSTETRICS
GYNECOLOGY

These world-famed surgeons participated in an International Symposium on Gynecological Surgery at Mount Sinai (April 24) sponsored by the International College of Surgeons. From left in the picture are: Dr. Charles Fields, professor and chairman, department of obstetrics and gynecology, the Chicago Medical School, chairman of the department of obstetrics and gynecology at Mount Sinai, Professor Stanley Way, chief of the department of obstetrics and gynecology, Gateshead on Tyne Infirmary, England, Dr. J. P. Greenhill, professor of gynecology, Cook County Graduate School of Medicine, and Editor of the "Yearbook of Obstetrics and Gynecology," Dr. Nickolas Louros, consultant gynecologist to the Royal Family and dean of the Medical Faculty of the University of Athens, Dr. Chien-Tien Hsu, dean and professor of China, Taipei Medical College, and chief doctor of the gynecology and obstetrics department, Provincial Taipei Hospital in Taiwan, and Dr. Ernst Navratil, head of the clinic and professor of obstetrics and gynecology at the University of Graz, Graz, Austria.

由於生化學的排課鐘點有限，許多部份的功課無法在規定時間內講述，所以借用綠杏的園地，略述要點，用來補充，冀使同學能了解得更加透徹。

甲・Oxytocin與Vasopressin

Oxytocin 爲子宮收縮因素（即催產素），Vasopressin 爲昇壓、抗利尿因素（即血管加壓素），二者雖然都生理的存在於人體或動物體內，但自然分泌出來的這兩種荷爾蒙卻非常不容易分開分離。可是人工合成的成功，使得不需多大困難便能得到較純粹的荷爾蒙。

關於催產素的產生部份，可能爲間腦的側室核Nucleus paraventricularis，至於血管加壓素的產生則爲間腦的上視核Nucleus supraopticus。這可由「破壞」實驗中得到證明。

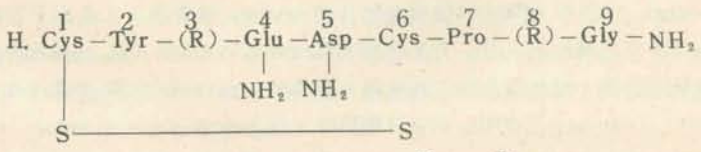
目前，側室一腦垂纖維 Paraventricularis-hypophyseal fiber 的存在已獲得證實。很可能有 Vasopressinergic Neuron 及 Oxytocinergic Neuron 混合存在於視丘下部的下垂體神經葉分泌系統，一旦遇有子宮、或子宮頸管的刺激如性交、哺乳等時，末梢知覺神經末端的興奮經過脊髓白質側索，再經過延髓的內側網體或網狀體，傳到視丘下部刺激催產素的分泌。而後分泌出來的催產素再被運輸到下垂體後葉，先經過貯藏後，再動員至血流中去。

另外，催產素的分泌與大腦也有關係；大腦穹窿部、中隔和視神經交叉前部的刺激也可促成催產素的分泌。

固然催產素 Oxytocin可以促進子宮收縮，在分娩過程中的地位非常重要。可是這種荷爾蒙的分泌卻是先因內因性的因素事先貯藏於下垂體後葉的。因此，誘發分娩的開始，是否眞正和催產素的分泌與動員有關則尙無法證實。

【化　學】

Oxytocin 與 Vasopressin 的構造如下



	R_3	R_8
Oxytocin（哺乳類，鳥類）	Ileu	Ieu
Lysine – Vasopressin	Phe	Iys
Arginine – Vasopressin	Phe	Arg