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A PHYSIOLOGICAL APPROACH OF PENILE VENOUS STRIPPING FOR PATIENTS WITH ERECTILE DYSFUNCTION ON AMBULATORY BASIS

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Disclosed is the latest method of a physiologically penile venous stripping for patients with erectile dysfunction (ED) secondary to veno-occlusive dysfunction (VOD), which mainly bases on a template of Hsu's penile anatomy. It is further endorsed by Hsu's erection physiology. Neither a Bovie nor a suction apparatus is required in the entire procedure. The method entails usage of a set of specific instrument used under an acupuncture-aided pure local anesthesia on an ambulatory basis. It includes a thorough penile venous stripping and then ligating one deep dorsal vein (DDV) and a paired of cavernosal veins (CVs) whereas two pairs of para-arterial veins (PAVs) are rendered for segmental ligation closest to the tunica albuginea. The Buck's fascia is just made 5-6 opening on each emissary veins which drain the sinusoidal blood away from the corpora cavernosa. Thus the DDV trunk serves as a guide to strip the venous system along the penile shaft while the emissary vein is fixed by 6-0 nylon. A pull-through maneuver is made from opening to opening until the penile base. Likewise, the CVs are managed. A 3.5 cm long longitudinal wound is performed on the pubic region to relay the venous stripping procedure. As a rule, there are 6-9 and 5-8 branches require treated corresponding to DDV and CVs respectively from penile base to the penile hilum. A total of 67-132 ligation positions are required to complete the treatment of the offensive erection related veins. Both wounds are fashioned with layer by layer while an assistant stretch the penile shaft mimicking an erectile status. Although the techniques for handling venous tissues with stripping and then ligation is extraordinary challenging, this innovative method turns the venous treatment for ED resulting from VOD from one that has been abandoned to a curable option

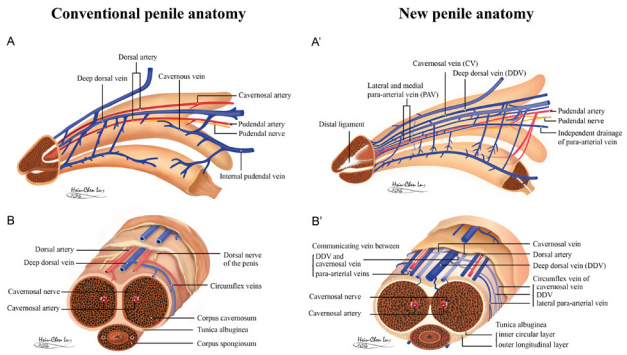

Figure 1: Schematic illustration of conventional and new penile anatomy. (A) Lateral view. The glans penis is exclusively composed of uniform sinusoids only? The deep dorsal vein (DDV) is sandwiched in by a pair of dorsal arteries (DA)? The 2:1 ratio of arteries to veins is the same as in the umbilicus vessel. (B) Cross-section of a pendulous portion in the human penis. The tunica albuginea of the corpora cavernosa is consistently described as a one-layered coat with uniform thickness. The median septum is complete. There is one single DDV and two DAs between the tunica albuginea and Buck's fascia. Thus the penile vascular system still complies with the general anatomical rule that veins number more than arteries do. In comparison, (A') Lateral view: The deep dorsal vein is consistently located in the median position and receives blood of the emissary veins from the corpora cavernosa and of the circumflex vein from the corpus spongiosum. It is sandwiched between the cavernosal veins, although these lie at a deeper position. Bilaterally, each dorsal artery is respectively sandwiched by its corresponding medial and lateral para-arterial veins. Note that the lateral para-arterial vein merges with the medial one proximally. The deeper color of the veins indicates the deepest part of the vasculature. (B') Cross section of the mid-penis. Note the number of veins is seven, not one as was traditionally believed. (Although the number becomes four at the level of the penile hilum because each pair of the nomenclature veins merges) Erection-related veins are arrayed in an imaginary arc on the dorsal aspect of the tunica albuginea.

Recent Publications

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Biography

Geng Long Hsu is a Clinical Professor at China Medical University. He has developed and refined a series of penile reconstructive surgeries, including penile venous surgery, corporoplasty and penile implantation, in tandem with advances in knowledge of the penile venous and tunical anatomy and of erection physiology. In 1993, he was promoted to the first Chair of Urology at Taiwan Adventist Hospital; he held that position until 1997 and then served as Vice-Superintendent of Po-Jen General Hospital until 2001. From 2001 to 2003, he was the Director of Microsurgery Potency Reconstruction at Taipei Medical University Hospital. Afterward, he has established his private practice—Hsu's Andrology which serves as both a clinical practice and research center. In 2012, his latest method of penile venous stripping surgery, administered via local anesthesia on an ambulatory basis, was granted a USPTO patent. He hopes this surgery will be studied and practiced worldwide.

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