Bicycle Riding Associated Erectile Dysfunction: Treatment Outcome of Surgery

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Introduction: Bicycle riding is a widespread, environmentally-friendly form of transportation promoted for such benefits as cardiovascular exercise, weight loss, adventure, relaxation, and recreation. There has been increasing attention to the bicycle riding public health paradox, that is, bike riding is also associated with chronic compression or acute crushing of perineal contents against the saddle or bar leading in approximately 5% of riders to permanent erectile dysfunction (ED). A recent population study showed that bike riding more than three hours per week is associated with a significantly higher risk of ED compared to the general population. Bike riders with ED tend to be younger, healthier, and more athletic than traditional patients with ED. Rather than being at the peak of their sexual lives, such young patients often have profound psychologic sequella associated with the ED. Treatment options, as a result, are often oriented toward spontaneous, natural, physiologic cure as opposed to chronically using pharmacotherapy. There are limited long-term data concerning revascularization treatment outcome in men with ED associated with bike riding.

Methods: We retrospectively reviewed the records of those men with ED secondary to bike riding who underwent penile revascularization surgery from 1996-2002 involving a single anastomosis between an inferior epigastric artery end-to-end to a dorsal penile artery. For treatment outcome concerns, pre- and postoperative sexual distress scale (SDS), International Index of Erectile Function (IIEF), and duplex Doppler ultrasound studies were obtained. In addition, we assessed pre- and post-Beck's depression scale and overall satisfaction.

Results: A total of 39 men (mean age 31+/- 12 years) formed the study population. Pre- and postoperative SDS and IIEF scores were 37+/-6/48, 23+/-4/48 and 17+/-5/30, 23+/-5/30 respectively. Pre- and postoperative duplex Doppler ultrasound studies revealed increases in cavernosal artery peak systolic flow in 28 (72%) men. Improvement in psychologic status, as assessed by Beck's depression inventory and structured psychologic interview was realized in 62%.

Conclusions: ED secondary to bicycle riding may be reversed by revascularization surgery. Improvement in overall erectile function, intercourse satisfaction, overall satisfaction, and well-being can be achieved.