Male sexual dysfunction after pelvic fracture

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J Trauma. 2007; 63: 394-401

Background: The assessment of multiple aspects of male sexual function after pelvic fracture.
Methods: A cross-sectional retrospective study of male sexual function was conducted. Patients admitted with traumatic pelvic fracture between January 1995 and June 2001 were included. One hundred and two patients were invited by mail. After performing a standardized clinical examination including an interview, the patients were asked to answer a questionnaire at home. Sexual dysfunction was classified as erectile dysfunction (ED), ejaculatory dysfunction, sensory loss in genital region, and pain during sexual activity. ED was assessed by the International Index of Erectile Function (IIEF). The pelvic injury was classified using Tile's classification.
Results: Complete data of 77 men were available (age 35 +/- 13). A total of 47 patients (61%) reported limitations in sexual function. Persistent ED was found in 15 patients (19%). The patient's report of ED could be verified by a low IIEF score in 14 cases. Injury patterns, which may increase the incidence of sexual dysfunction, could be identified. A ruptured symphysis appeared to bear a risk of temporary ED. Comparing compression and distraction in type B injuries, patients with distraction injury showed more severe sexual function. Posterior ring disruptions seemed to increase the risk of persistent problems, possibly caused by nerve damage.
Conclusions: This study emphasizes that major pelvic trauma may impair sexual function in men. The results demonstrate an objective measurement of ED by the IIEF as well as an extended spectrum of complaints. The IIEF questionnaire might be considered to identify patients that need further medical evaluation.

Editorial Comment

Often times, years after the orthopedic complications of pelvic fracture have long healed the urologic complications of urethral stricture and erectile dysfunction continue to plague the patient. Impotence after pelvic fracture appears to be is primarily vascular from either a pure arteriogenic or combined arteriovenogenic cause. By the use of MRI and Doppler studies, Armenakas et al. has shown that the corporeal veno-occlusive dysfunction and cavernous arterial insufficiency after pelvic fracture are due to direct corporal cavernosal fracture or avulsion, subsequent fibrosis which alters the elasticity of the tunica albuginea and corporeal compliance, or to internal pudendal artery injury. Only secondarily is impotence primarily neurogenic. Neurogenic impotence is the result of prostatic plexus and/or neurovascular bundles nerve injury, and from nervi erigentes (S2-S4) injury due to shearing forces of the pelvic fracture that result in nerve stretching and tearing. Predictive signs of potential erectile dysfunction as noted by MRI are avulsion of the corpus cavernosum from the ischium, separation of the corporeal bodies, fracture of the corporeal body, and superior or lateral displacement of the prostate apex. Surgical correction for impotence (prosthetics, arterial reconstruction and venous occlusion), however, should be deferred for at least 12 to 18 months from initial injury, because delayed return of erectile function can occur spontaneously.

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