Ejaculatory incompetence following penile prosthesis implantation in men with primary psychogenic impotence

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Surgical implantation of synthetic material into the substance of the penis for the treatment of erectile impotence was first reported in 1952.[1] In the ensuing 30 years prosthesis design and surgical technique have undergone continued development and refinement. Many thousands of men worldwide with erectile failure of diverse etiology have now experienced operative restoration of copulatory capacity through penile prosthesis implantation. Follow-up studies have reported patient satisfaction rates in the 89%–95% range.[2-4]

The great majority of implant recipients have carried a preoperative diagnosis of biogenic impotence. For patients with psychogenic impotence psychological treatment approaches such as directive sex therapy, psychotherapy, or marital therapy have generally been regarded as more appropriate. Most urologists doing prosthesis surgery have been willing, however, to do prosthesis implantation in selected patients with psychogenic impotence. Typically these patients have failed to respond to previous efforts at psychological treatment. In the only follow-up study that specifically addresses the issue, Gerstenberger et al[2] found that prosthesis recipients with biogenic and psychogenic preoperative diagnoses did not differ in the postoperative level of satisfaction. Of their 61 operated patients, 11 had

psychogenic impotence, but the authors did not specify the pattern of impotence (primary or secondary, total or partial) in their psychogenic group. We report here on two patients with primary psychogenic erectile dysfunction who received a penile prosthesis at our center.

Case reports

Case 1. A never married 48-year-old white man presented with a long-standing history of impotence, dating to his first coital attempt at age 23. All attempts at coital penetration, involving eight partners over the next 15 years, ended in failure. However, he experienced frequent sustained morning and masturbatory erections of good quality. Ejaculation was antegrade with normal orgasmic sensation. At age 38 he arranged directive sex therapy with a volunteer partner at a well-known midwestern sexual dysfunction clinic. This resulted in successful penetration with orgasm and intravaginal ejaculation on three occasions. Subsequently he relapsed into complete coital erectile failure for a period of 6 years. At age 44, he sought penile prosthesis implantation at our center. Presurgical evaluation included a normal physical examination and unremarkable urological examination. Laboratory assessment included serum luteinizing hormone, follicle-stimulating hormone, testosterone, and prolactin determinations, complete blood count, routine chemistries, Venereal Disease Research Laboratory test (VDRL), urinalysis, and glucose tolerance test. All studies yielded normal results. Presurgical psychiatric consultation revealed a long-standing hypochondriacal disorder centered around food faddism, dietary supplements, and a fear of hypocalcemia. There was no evidence of psychotic thinking, though obsessional and narcissistic personality traits were observed. The Minnesota Multiphasic Personality Inventory—California Psychological Inventory (MMPI-CPI) report indicated mild depression and anxiety in a behaviorally overcontrolled, reasonably stable individual. Further efforts at psychological treatment did not seem reasonable, though patient and physician both agreed that the problem was psychogenic. Hence a Scott penile prosthesis was implanted in 1978 with good operative result. Two years postoperatively, the patient reported a frustrating inability to ejaculate or experience orgasm intravaginally on all attempted occasions (two partners, nine attempts) despite prolonged thrusting. During sexual activity with a life-size, plastic doll, however, he could experience antegrade ejaculation with normal orgasmic sensation on all occasions. Though professing a strong desire to marry someday, he asserted that he could never marry since his sexual problem would automatically cause any wife to "seek an annulment."

Case 2. A married 59-year-old man presented with a 45-year history of impotence, dating to his first attempted sexual intercourse at age 14. Subsequent adolescent coital initiatives likewise ended in failure. From the outset of his marriage at age 24, he was dysfunctional with inability to penetrate his wife 90% of the time despite good quality morning, nocturnal, and masturbatory erections. When first seen at our facility, there had been no partner penetration in 8 years, though he could sustain masturbatory erections. Libido was well preserved. He reported antegrade ejaculation with normal orgasmic sensation. Previous hormonal and sexual counseling had been unavailing. Medical and urological evaluations were essentially normal. Laboratory investigation revealed normal values for the following: 3-hour glucose tolerance test, serum testosterone, VDRL, CBC, urinalysis, SMA-12, and penile vascular flow studies. The MMPI-CPI was interpreted as compatible with chronic mild depression in a somewhat behaviorally and cognitively rigid, alienated individual. Psychiatric consultation confirmed a mild degree of largely unacknowledged chronic depression. No history of specific or cumulative developmental psychosexual trauma could be elicited. The marital and occupational history indicated a pattern of stable interpersonal relationships. The patient was believed to have clear-cut primary psychogenic impotence. Further psychological treatment appeared futile in light of the extreme chronicity and previous failure with

counseling. Penile prosthesis surgery was recommended, and a Jonas prosthesis was implanted with good operative results. Postoperatively, however, he complained of inability to achieve orgasm or ejaculate intravaginally on all attempts, though he could still achieve orgasm with antegrade ejaculation and normal orgasmic sensation through masturbation. He insisted that now his penis was too short for intercourse, saying, "It's an inch shorter than it used to be, an inch I could not afford to lose."

Discussion

In our surgical series of 150 consecutive patients receiving penile prosthesis implantation for treatment of impotence, only two patients have developed ejaculatory incompetence (retarded ejaculation, orgasm inhibition) postoperatively. Both had primary psychogenic impotence and represented 100% of our operated sample with this problem. No patients with organic impotence (n = 143) or secondary psychogenic impotence (n = 5) have developed any new sexual dysfunction postoperatively.

The psychogenic etiology of both the impotence and emergent postoperative ejaculatory incompetence was clear-cut in both cases. Both patients could develop and sustain rigid erections outside of the coital situation, and medical investigation produced no evidence of physical abnormality that could explain the impotence. Similarly, both retained the capacity for antegrade ejaculation with normal orgasmic sensation postoperatively during masturbatory activity. The ejaculatory incompetence was limited to the coital situation. Neither patient developed aspermia and neither was taking medication known to interfere with emission or ejaculation. Both patients had functioning prostheses, uncomplicated surgery and unremarkable neuro-urological evaluation.

Researchers have reached no agreement on the criteria for primary psychogenic impotence. Masters and Johnson[5] insist on a history devoid of successful coitus in men who have erections of good quality in other circumstances. We believe that a continuous and predominant pattern of erectile failure dating to the earliest coital attempts is sufficient for the diagnosis, thus allowing for infrequent or occasional coital success in men who have never achieved erectile security. Graber and Kline-Graber[6] have noted the need for greater precision in subtyping male erectile failure for research purposes. They observe that different patterns of psychogenic erectile dysfunction may imply different etiologies and call for different treatment strategies. In their scheme the cases we report would represent two distinct subtypes of primary erectile failure. Although clinical reports on psychological treatment of erectile dysfunction have repeatedly demonstrated that patients with primary dysfunction respond less favorably than those with secondary dysfunction, it is not clear whether the outcome implies separable clinical entities or yet another example of the well-known treatment recalcitrance of chronicity per se.

Kaplan[7] has postulated a dynamic equilibrium between the superficial and deeper sources of the disruptive anxiety or fear that produces erectile failure. In some men, the superficial fear of failure (performance anxiety) predominates or suffices to explain the problem. In others, the fear of failure is found to mask an even deeper and usually unconscious fear of sexual success derived largely from unresolved Oedipal conflict.

The pattern of response to surgery in the cases we report suggests that primary and secondary psychogenic im-

potence may be separable clinical disorders with distinctly different psychodynamic pathogeneses. Surgically treated patients with primary, but not secondary, psychogenic impotence developed a new psychosexual dysfunction, ejaculatory incompetence. If men with primary and secondary psychogenic impotence were suffering from an identical clinical entity, then a major difference in postoperative response to penile prosthesis surgery would seem unlikely. A differential outcome response to surgery would be compatible, however, with the concept that success fears predominate over performance fears in men with primary impotence, whereas performance fears predominate in men with secondary impotence. If this were true, then males with strong undercurrents of unrecognized success anxiety might theoretically be predicted to discover new ways to fail if the means for sexual success were conferred upon them with a penile prosthesis. Viewed in this way, the development of ejaculatory incompetence in our patients could be understood as a classic example of symptom substitution designed to sabotage success and preserve the intrapsychic equilibrium.

As Kaplan[7] has observed, the occurrence of anxiety during a particular phase of the sexual response cycle in interaction with the specific defense against that anxiety determines which of the various sexual dysfunctions will occur. Both our patients made remarks postoperatively that suggested that preoperatively the impotence had been serving an important but unrecognized defensive function. Both developed a new psychosexual dysfunction postoperatively. We speculate that the surgery did not alleviate anxiety but led to its reattachment to a different phase of the sexual response cycle, with use of obsessive self-observation as a means of controlling anxiety. We believe that the persistence of anxiety and emergence of a new sexual dysfunction postoperatively only in the men with preoperative primary impotence argues for a deeper underlying source of anxiety in this group. Regrettably we did not have the opportunity to further explore this hypothesis since both patients declined further psychological treatment.

Although the above explanation for the observed differences in outcome between the groups must be regarded as tentative, our data strongly suggest that men with primary psychogenic impotence may be poor candidates for penile prosthesis implantation. Further studies are indicated, and should clearly subtype psychogenic cases to determine the suitability of patients with various patterns of erectile dysfunction as candidates for operative treatment.

References

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