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Editorial Commentary

Peyronie Disease in Younger Men

Levine LA, Estrada CR, Storm DW, Matkov TG. Peyronie disease in the younger men: characteristics and treatment results. *J Androl.* 2003;24:27–32.

The article in this issue by Levine et al documents Peyronie disease characteristics in a younger population of men. The mean age of the group was 31 years, with a range of 18 through 38; quite unusual for the standard Peyronie disease population that we see in our daily office practices.

As these authors correctly point out, most patients with Peyronie disease present at a much later age, usually in their 50s (Bivalacqua et al, 2000; Gholami and Liu, 2001). Thus the physician is often presented with the challenge of how to treat younger individuals. Do we treat young men in a similar fashion as we do older patients? Are there age-specific issues that need to be addressed? Do any special areas need to be covered?

The paper by Levine et al eloquently addresses some of these questions. As an example, their definition of Peyronie disease is clear and straightforward. The diagnosis was dependent on the existence of a palpable penile plaque, and penile curvature was measured after intercavernosal injection of papavarine. Plaque size was measured with a Duplex Doppler ultrasound. Thus, several objective maneuvers were used to document the plaque, its size, the degree of curvature, the degree of erectile dysfunction, and the subsequent treatment outcome.

Of the 626 men who present with Peyronie disease at this institution, 30 men younger than age 40 had complaints consistent with Peyronie disease. Thus the prevalence of the disease was 4.8%. The two most common complaints were penile pain and a palpable nodule. The onset of the disease was perceived to be gradual in the majority of men (57% of men believed it was due to a specific traumatic event). It is interesting that 29 of 30 men (97% of patients) were able to achieve an erection. Only 1 patient had a family history of Peyronie disease, and only 10 of the 30 patients had comorbidities.

On physical examination all patients presented with a palpable penile plaque. The plaque location was distal in 14 (47%) patients, midshaft in 6 (20%), and proximal in 13 (43%), with multiple plaques noted in 6 (20%) patients. It is interesting that the mean curvature of the erect penis was only 21 degrees. This is certainly not severe, however, the authors tell us that many individuals believed that they could have intercourse, they were somewhat compromised by the deformity. About one-third of patients had shaft narrowing and a hinge effect that caused buckling during coitus.

Treatment included verapamil injections (Levine et al, 2002) in 57% and observation in 17%, whereas 24% of individuals underwent some type of surgical procedure. Surgeries include plication in 10%, dermal grafting in 7%, and a combination of plication and grafting in 7%.

It is interesting that the five patients (17%) who received no therapy and who were on an observational protocol had minimal curvature, no pain, and no difficulty with coitus when they presented. Twenty-three percent of patients underwent surgery (7 of 30 patients). All had resolution of the curvature with preservation of potency, with a mean follow-up of 60 months. Of the 17 men (57% of the cohort) who underwent verapamil injections, 10 had objective improvement in erection quality, 5 had no change and 2 (12%) had worsening.

Of the 13 patients who presented with pain from the onset, 7 were treated with verapamil. One had significant improvement, whereas 6 had complete pain resolution. Of the 13 patients with curvature treated with verapamil, 7 had subjective improvement, 4 had no change, and 2 reported worsening. Five of the 10 available patients evaluated for curvature had an improvement of 18 degrees, 2 showed no change, and 3 had a mean worsening of 22 degrees.

The authors are well deserving of praise for this excellent study. We are often faced with having to treat Peyronie disease in younger individuals and treatment can often be confusing and complicated.

This paper sheds light on treatment for these young men and offers several excellent options for these individuals. Unfortunately, we are not told about the length of follow-up of the younger individuals who were on the observational protocol. Perhaps with time we will understand the natural history of treatment of the observational cohort, which may allow us to reflect on whether the observational protocol was adequate or inadequate.

Encouraging results are noted with both surgery and verapamil injections. It is certainly noteworthy that all surgical candidates had preserved potency at 60 months after the procedure with reduction of pain and angulation, and a satisfactory treatment outcome. Others noted a satisfactory outcome as well (Chun et al, 2001). It is also encouraging to note that men who underwent verapamil injections also had a positive outcome in a significant number of cases, as well.

Thus the dilemma of how to treat the younger individual with Peyronie disease may now have evolved into a treatment algorithm based on these encouraging data. Certainly the younger man with a palpable plaque, no pain, minimal curvature, good quality erections, and an ability to have intercourse can be observed. For those individuals with pain, verapamil injections may be the first line option. It is disappointing that the authors did not have a cohort that included an oral drug treatment plan. It certainly would have been a major sep forward in our understanding of how to treat the younger individual with oral medicine such as potaba, colchicine, or tamoxifen (Cavallini et al, 2002). Surgery remains an important component of treatment in these individuals. A good surgical outcome was noted in the majority of cases. The only shortfall in this treatment arm was the time frame of when to offer surgery and how to choose the specific procedure. Should surgery be a first line option? Should surgery be delayed until the patient has tried observation oral therapy or intralesional verapamil? These are questions, unfortunately, remain unanswered. Nonetheless, a great deal of important information is provided. The authors are to be commended for this large and detailed study, which contributes significantly to the literature on Peyronie disease in younger men.

References

Bivalacqua TJ, Purohit SK, Hellstrom WJ. Peyronie's disease: advances in basic science and pathophysiology. *Curr Urol Rep.* 2000;1:297–301.

Cavallini G, Biagiotti G, Koverech A, Vitali G. Oral propionyl-l-carnitine and intraplaque verapamil in the therapy of advanced and resistant Peyronie's disease. *BJU Int.* 2002;89:895–900.

Chun JL, McGregor A, Krishnan R, Carson CC. A comparison of dermal and cadaveric pericardial grafts in the modified Horton-Devine procedure for Peyronie's disease. *J Urol.* 2001;166:185–188.

Gholami SS, Lue TF. Peyronie's disease. *Urol Clin North Am.* 2001;28: 377–390.

Levine LA, Goldman KE, Greenfield JM. Experience with intraplaque injection of verapamil for Peyronie's disease. *J Urol.* 2002;168:621–625.

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