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Viewpoints

Botox Treatment for Vaginismus

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Sir:

Figure. No caption a...

Vaginismus is the recurrent or persistent involuntary contraction of the perineal muscles surrounding the vagina when penile, finger, tampon, or speculum penetration is attempted. In primary vaginismus, intercourse is impossible, although some of these patients are able to insert thin tampons with difficulty. Speculum examination usually causes a great deal of pain, burning, and fear. In secondary vaginismus, patients have had successful coitus and also may have given birth. There appears to be a continuum ranging from dyspareunia to mild vaginismus to severe vaginismus.

As a result of painful penetration of the vagina, patients develop an intense fear syndrome of anything that might penetrate the vagina. This often results in sweating, nausea, and vomiting.

Conservative therapy may be helpful in milder cases, consisting of Kegel exercises, psychotherapy, sex counseling, lubricants, topical anesthetics, muscle relaxants, antianxiety medications, physical therapy, and therapy with dilators. These conservative measures generally take years for the patient to accomplish the goal of being able to have intercourse. More severe cases are recalcitrant to these measures, resulting in a great deal of frustration and upheaval in relationships and marriage.

In my practice, 20 patients were treated with intravaginal Botox (botulinum toxin type A; Allergan, Inc., Irvine, Calif.) injections under sedation between 2005 and 2009. Twelve patients had primary vaginismus, five patients had secondary vaginismus, and three patients had severe dyspareunia. Twelve patients were a Lamont level 4, the most severe grade of vaginismus. Sixteen patients were able to achieve intercourse in 2 weeks to 3 months; three patients are under treatment, having advanced to the fifth or sixth of six dilators; and one patient who was unable to advance beyond the smallest dilator is considered a failure. All patients continue to be followed, and these patients are now counseling others who have vaginismus.

Initially, lower doses of Botox were used to preserve some of the muscular activity of the vagina. With

experience, higher doses (100 to 150 units of Botox) were found to be more effective in achieving complete temporary relaxation of the vagina. I currently use 2 ml of saline to dilute 100 units of Botox. This is injected in multiple areas along each lateral side of the vagina to include the bulbocavernosus, pubococcygeus, and puborectalis muscles, which are generally the areas of maximum spasm. A 1¼-inch needle and vaginal speculum are used. The procedure is performed under sedation in our surgicenter. Currently, 15 to 20 ml of 0.25% bupivacaine with 1:200,000 epinephrine is also injected into the spastic muscles and an indwelling dilator (the fifth of six dilators) coated with 2% lidocaine jelly allows the patient to wake up in recovery often experiencing pain-free penetration for the first time. This appears to speed up the time of treatment to intercourse to as early as 2 weeks. Patients usually require heavy sedation because of the amount of fear associated with any thoughts of penetration. One should be prepared and have permission to perform a hymenectomy, although this was not needed in this series of patients.

Patients are advised to use a series of graduated dilators for approximately 2 weeks before attempting intercourse. During this period, I keep in touch with my patients several times per week for support. Women find it helpful to use a dilator for approximately 30 minutes before attempting intercourse. Lubrication is essential.

Women continue to have burning and discomfort during the early attempts at intercourse, but this resolves within a few weeks. Couples are advised that during the early attempts at intercourse, the woman needs to be able to communicate her levels of comfort. Minimal penetration intercourse with minimal movement has been very helpful in allowing the woman to overcome her intense fear of pain. Sixteen of our patients (94 percent) now experience the joys of having pain-free intercourse.

In this series of women, there were no complications. There was one side effect of excessive dryness, likely caused by the action of the Botox. The parasympathetic system governs vaginal lubrication and is blocked by the action of Botox. The other patients used lubrication and did not notice any dryness. Of the successful outcomes, no patient has had a recurrence. None have had any urinary or fecal incontinence.

There is considerable psychological overlay in this population. Sexual molestation, date rape, and strict sexual upbringing are among the factors associated with vaginismus, although often the cause is unknown. Many patients had no idea that they had a problem until their first attempted gynecologic examination or during their honeymoon. These experiences are devastating for these women.

Although 20 cases is a small series, there appear to be fewer than 60 cases reported in the English language literature. A seminal article by Ghazizadeh and Nikzad[1] reported on the use of Botox in the treatment of refractory vaginismus in 24 patients. In this study, Dysport (150 to 400 mIU; Ipsen Ltd, Slough, Berkshire, United Kingdom) was used. Twenty-three patients were able to have vaginal examinations 1 week after the procedure, showing little or no vaginismus. One patient refused vaginal examination and did not attempt coitus. Of the 23 patients, 18 (78 percent) achieved satisfactory intercourse, four (17 percent) had mild pain, and one was unable to have intercourse because of her husband's impotence. A second dose of Dysport was needed for one patient. There were no recurrences during the 2- to 24-month follow-up period.

The ratio of Dysport to Botox is 2.5:1 as described by Carruthers et al.[2] A 1997 case report of secondary vaginismus treated first with 10 units of Botox followed by 40 units of Botox was published by Brin and Vapnek.[3] This patient was able to have intercourse for the first time in 8 years. The results persisted for the 24 months of follow-up.

We have received many touching emails of progress reports and thanks from our patients. Vaginismus is a very serious problem for these women. It is poorly understood, and many physicians across a number of specialties have limited experience with this entity. It is hoped that with additional awareness, physicians will have yet another modality for the treatment of vaginismus.

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REFERENCES

1. Ghazizadeh S, Nikzad M. Botulinum toxin in the treatment of refractory vaginismus. *Obstet Gynecol.* 2004;104:922-925.

2. Carruthers JD, Glogau RG, Blitzer A; Facial Aesthetics Consensus Group Faculty. Advances in facial rejuvenation: Botulinum toxin type A, hyaluronic acid dermal fillers, and combination therapies. Consensus recommendations. *Plast Reconstr Surg*. 2008;121(Suppl.):5S-30S.

3. Brin MF, Vapnek JM. Treatment of vaginismus with botulinum toxin injections. *Lancet* 1997;349:252-353.

Section Description

GUIDELINES

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