Case Presentation: Prolapse

G. Willy Davila and Daniel Biller

History and Physical Examination

The patient is a 38-year-old G4P2 woman, with a 3-year history of increasing bladder dysfunction and a 6-month history of exteriorized vaginal and rectal prolapse. She stated that the exteriorized portion is quite large, and she brought two Polaroid photos of what appeared to be at least a fourth degree cystocele, as well as a rectal prolapse of a large amount of rectal mucosa. She also complains of urge urinary incontinence for 2 years. She voids 7 to 10 times per day wearing 1 to 2 pads per day, reporting 1 to 2 episodes of incontinence per day. She reported four or more episodes of nocturia per night with no enuresis or recurrent urinary tract infections, and voids with a normal flow. Her obstructive defecation symptoms have been present for 3 years with no fecal incontinence. She is sexually active. She had been fit with a vaginal ring pessary by her primary physician, which she wears without significant difficulties.

Medical History

1. Vaginal delivery ×2, largest was 6 pounds 6 ounces
2. Multiple sclerosis
3. Hypertension
4. Irritable bowel syndrome

Medications

1. Escitalopram (Lexapro)
2. Acetaminophen/hydrocodone (Lorcet)
3. Interferon beta 1a (Avonex)

Physical Examination

Pelvic Examination

Normal external genitalia. Urethra, bladder, and vagina were normal. Empty bladder stress test was negative. Perineal sensation and reflexes were normal. Prolapse examination was remarkable for no evident prolapse externally with associated marked levator hypertonicity on digital vaginal examination. Vaginal caliber was decreased at the introitus with Valsalva efforts in the supine, sitting, and standing position. Third degree cystocele, and third degree rectocele elicited on examination. In addition, third degree uterine prolapse was noted. Bimanual examination was normal, with no masses. Excellent Kegel contraction was elicited.

Rectal Examination

Large full-thickness rectal prolapse, approximately 5 to 6 cm.

Work-up

• Urinalysis: negative
• Urine culture: negative

Defecography

Rectal emptying partial. Opening of the anal canal adequate. Relaxation of the puborectalis adequate. Anorectal angle normal. Straightening of the anorectal angle adequate. Perineal descent increased and fixed. Large anterior rectocele which was nonemptying. There was rectoanal intussusception.
Colonic Transit Study

Normal

Urodynamics

Postvoid residual of 40 mL. Multichannel cystometrogram to capacity of 403 mL revealed uninhibited detrusor contractions resulting in a large amount of urine loss beginning at about 350 mL. No stress incontinence was noted. Urethral pressures were high-normal at 195 cm H2O. Leakpoint pressure testing revealed no leakage up to a maximal Valsalva effort of 166 cm H2O at capacity. Cough profile was negative and on uroflowmetry she had a peak flow of 14.7 mL per second. Q-tip angle was positive between 35 to 50 degrees. Results indicated detrusor instability without any stress incontinence.

Cystoscopy

Normal bladder with no significant trabeculations.

Assessment

Complex pelvic floor dysfunction including:
1. Remarkable levator hypertonicity
2. Reported exteriorized vaginal prolapse
3. Third degree cystocele and rectocele
4. Third degree uterine prolapse
5. Full-thickness rectal prolapse
6. Detrusor overactivity
7. Constipation

Procedures Performed

1. Sigmoid resection and rectopexy
2. Uterocolposacropexy
3. Abdominal enterocele repair
4. Anterior and posterior repair
5. Cystoscopy and suprapubic catheter placement

Commentary

Coexistence of advanced genital and rectal prolapse can be quite challenging to evaluate and treat. This is especially true in the younger, reproductive-age woman. As compared with the elderly woman presenting with very evident exteriorized vaginal and rectal prolapse who may be readily treated with a perineal proctosigmoidectomy and vaginal obliterator colpocleisis, the reproductive-age woman frequently presents with a complaint of rectal prolapse that is intermittent. This type of patient may now typically show up to the clinic with “Polaroid in hand.” The advent of digital photography has facilitated demonstration of the maximum extent of rectal prolapse.

Although this patient did not demonstrate paradoxical contraction of the puborectalis muscle during defecography, she did demonstrate significant levator hypertonicity on vaginal and rectal examination. This likely contributed to her rectal prolapse because of the need to perform intense Valsalva efforts for bowel evacuation. Providing further evidence of increased pelvic floor tone is the rather elevated urethral closure pressure at 195 cm H2O. This may have provided her protection from developing stress urinary incontinence.

This patient carried a diagnosis of multiple sclerosis. The detrusor overactivity demonstrated on multichannel cystometrogram is likely related to her underlying neurologic problem, because it is otherwise uncommon to find idiopathic detrusor overactivity in a young woman. She only takes anticholinergic medications on a p.r.n. basis.

Planning a combined reconstructive pelvic surgery in a patient such as this requires excellent communication among the involved surgeons (Figure 8-8.1). For example, the abdominal resection rectopexy was performed first, with care being taken to not contaminate the operative field. Appropriate sharing of the sacral promontory to achieve both rectal and vaginal elevation requires a methodical surgical approach. We have found that performing the rectopexy to the mid sacral region before using the upper sacral segments for the vaginal elevation allows for a smooth surgical flow. If there is no operative field contamination, we will use bone anchors for suture attachment to the sacral promontory, as we normally do during a non-