MASTER CLASS

An Individual's Pain, Society's Pain

BY CHARLES E. MILLER, M.D.

Chronic pelvic pain is a staggering problem. Medical costs have been estimated at $1-$2 billion per year. Missed work and decreased productivity are believed to affect business negatively at a cost of $15 billion per year. Chronic pelvic pain is responsible for 10% of ambulatory referrals to gynecologists, 20% of all hysterectomies for benign disease, and 40% of all laparoscopies. Moreover, 15% of women have reported chronic pelvic pain within the past 3 months.

Despite this, we as physicians do a poor job of diagnosing and managing chronic pelvic pain. Several reasons, including the following, account for this shortcoming:

► Chronic pelvic pain patients require a real time commitment. Because time is our greatest commodity, the lengthy process of reviewing voluminous records, taking a detailed history, and carrying out a meticulous examination can be quite exasperating for a busy practitioner.

► Evaluation and treatment generally reflect our training. That is, we tend to make gynecology-related diagnoses and to recommend treatment within our skill set, just as urologists and gastroenterologists would make GU- and GI-related diagnoses and treatment recommendations.

► Once a diagnosis has been made, physicians have a tendency to stay with the diagnosis; they do not reinvestigate for other causes. Unfortunately, chronic pelvic pain can have multiple etiologies.

► Physicians can be uncomfortable initiating a discussion of abuse issues with their patients, thus omitting the evaluation of a very real aspect of chronic pelvic pain.

I have asked Dr. Fred Howard to present the first of two articles for the Master Class in gynecologic surgery. In this article, he discusses the diagnostic approach to chronic pelvic pain; in April, he will present therapeutic options.

Dr. Howard, who is associate chair for academic affairs, director of the division of gynecologic specialists, and professor of ob.gyn. at the University of Rochester (N.Y.), is a world leader in the arena of chronic pelvic pain. Not only has he authored numerous peer-reviewed journal articles and book chapters on the condition, but he is also the coeditor of one of the essential authoritative resources on the subject, "Pelvic Pain: Diagnosis and Management" (Philadelphia: Lippincott Williams & Wilkins, 2000).

Dr. Miller, *a reproductive endocrinologist in private practice in Arlington Heights, Ill., and Naperville, Ill., is the medical editor of this column.*

Diagnosing Chronic Pelvic Pain

BY FRED M. HOWARD JR., M.D.

Chronic pelvic pain is a much larger problem for women than is generally recognized, and it requires a more thorough and complete history and physical examination than many appreciate.

Too often, women with chronic pelvic pain will have a barium enema to rule out a gastrointestinal cause, an intravenous pyelogram to rule out urinary tract disease, and a host of other diagnostic tests that are neither efficient nor effective because they have not been driven specifically by the findings of a history and physical exam. Most gastrointestinal causes of pelvic pain, in fact, cannot be diagnosed by a barium enema, and most urologic causes cannot be determined through an IVP. The same holds true for other tests.

Such a rule-out approach may seem appropriate up front, but it actually is much less efficient—and quite often less accurate—than a stepwise, deliberate approach to history-taking and physical examination.

With the correct approach, we can successfully evaluate most patients with chronic pelvic pain in a 45-minute visit—which is an achievement, considering that many disorders of the reproductive tract, gastrointestinal system, urologic organs, musculoskeletal system, and psychoneurologic system may be associated with the disorder.

Behind the Diagnostic Approach

After years of treating patients with chronic pelvic pain, I still am struck by the fact that among women of reproductive age, the disorder has about the same prevalence as do asthma, migraine headache, and low-back pain. It is a significant cause of all referrals to gynecologists, and the etiology is usually not immediately discernible. More often than not, chronic pelvic pain is caused by or associated with several diagnoses or disorders.

One woman, for instance, might have endometriosis, irritable bowel syndrome, and emotional stresses, all of which could be contributing to her chronic pelvic pain.

We lack a universally accepted definition of chronic pelvic pain, but we come closest, I believe, with a definition described in a practice bulletin published by the American College of Gynecologists and Obstetricians in 2004.

The definition is based primarily on the duration, location, and severity of the pain. It says that chronic pelvic pain is noncyclic pain of 6 or more months' duration that is localized to the true anatomical pelvis; the anterior abdominal wall at or below the umbilicus; the lumbosacral back; or the buttocks. The pain must be severe enough to cause functional disability or require medical care.

Some experts include chronic vulvar pain in their definition of chronic pelvic pain, but many do not—and the latter sentiment is reflected in ACOG's definition. According to the bulletin, approximately 15%-20% of women aged 18-50 years have chronic pelvic pain that lasts longer than 1 year.

It is less clear what proportions of women with chronic pelvic pain have specific diagnoses. We do know, however, that the gastrointestinal tract and urinary tract are just as important—if not more important—than the reproductive tract in its diagnosis. One study using a large, primary care database in the United Kingdom found that diagnoses related to the GI and urinary tracts were significantly more common than gynecologic diagnoses (approximately 38% GI, 31% urinary, and 20% gynecologic).

Again, the message for us is significant: We need to conduct a comprehensive review, through a history and physical exam, of all the systems—not only the reproductive tract—that are potentially involved in chronic pelvic pain.

The History and Exam

One of the fundamental components of the diagnostic approach is a pelvic pain intake questionnaire. Questionnaires are so commonly used in medicine today that they generally are well received by patients, and although they are not at all meant to take the place of listening to the patient tell her story, they can be quite helpful in securing details of your patient's obstetric and other medical and psychosocial history as well as the location, severity, quality, and timing of her pain. The International Pelvic Pain Society offers a useful form that can be downloaded free of charge.

It can also be useful to ask your patient to mark the location of her pain on a pain map, indicating whether it is external or internal, and whether it is sharp, dull, numb, or prickly. Other evaluation instruments, such as the visual analog scale, may also be used to assess pain severity. In addition, it can be useful to ask the patient how long the pain lasts when it occurs, how much it affects her daily life, and how the pain has changed over time.

When it comes to the physical exam of a patient with chronic pelvic pain, we need to think a little differently than we would in other scenarios and with other classic exam techniques. One of our major goals with chronic pelvic pain is to detect exact locations of tenderness and correlate these with areas of pain, so we need to think of our exam as an attempt to map the patient's pain.

This means that we must take a systematic, step-by-step approach to reproducing the pain through gentle palpations and physical positioning and maneuvering.

When I do an examination, I divide it into standing, sitting, supine, and lithotomy exams. The standing exam is mainly an evaluation for musculoskeletal problems, and should specifically seek evidence of abdominal, inguinal, or femoral hernias; fibromyalgia; lumbosacral disk disease; short leg syndrome; and postural abnormalities.

The supine exam consists of a series of maneuvers and tests, from active leg flexion and obturator and psoas sign testing, to abdominal palpation and groin and pubic symphysis evaluation. It is important to initially palpate the abdominal wall with a light touch—almost superficially at first—while you note hyperesthesias or hypersensitivity of the skin and check for superficial abdominal reflexes. Then use single-digit palpation to look for myofascial or trigger-point pain.

An abdominal wall–tenderness test (known as Carnett's test), in which the patient tenses her abdominal muscles while you palpate an area of tenderness, can be used to distinguish myofascial tenderness or trigger points from visceral tenderness. Pain that increases during the test is usually of myofascial origin, or comes from the abdominal wall itself. If the pain is decreased or unchanged, it likely is not myofascial.

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Main Concepts For Evaluations

► Obtain a thorough and complete history in the following areas:
- Pain
- Gynecologic
- Gastrointestinal
- Urinary
- Musculoskeletal
- Psychological
- Neurologic
- Prior evaluations
- Prior treatments

► Use a questionnaire.

► Direct the physical examination to "pain mapping."

► Do not expect laboratory and imaging studies to add much to your evaluation:
- Order tests that are needed to rule out life-threatening diseases.
- Order tests that will definitively confirm your clinical diagnoses.

► Expect common diagnoses that have level A evidence of association with CPP:
- Irritable bowel syndrome
- Interstitial cystitis
- Myofascial trigger points
- Depression
- Endometriosis
- Chronic pain syndrome

► Expect more than one diagnosis.

► Appreciate that chronic pain syndrome is often a diagnosis.

► Do not assume that laparoscopy is essential; it is usually not needed for a diagnosis.

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Myofascial pain is most often related to trigger points and can be the result of hernias, hematomas, infections, or trauma.

It is important also to specifically evaluate any scars for abnormal tenderness.

Once you have moved through these components, you can finish the supine examination with a more classic approach aimed at detecting distention, masses, ascites, and other irregularities.

The most important thing to consider for the pelvic examination is that it should always be done with a single finger on a single hand. The objective is to identify focal areas of abnormal tenderness in any pelvic structure. This includes the pelvic floor muscles (levators, piriformis, obturators), rectovaginal septum, cul-de-sac, vulvar vestibule, urethra, bladder, Alcock's canal, uterosacral ligaments, cervix, lower uterine segment, uterine fundus, adnexae, pelvic ureters, anus, coccyx, and rectum.

Beyond the Physical Exam

It is then appropriate to perform laboratory and other diagnostic tests as indicated by the history and physical exam. Overall, such tests do not add much to the evaluation. They are important, however, for ruling out potentially life-threatening conditions or for verifying suspected diagnoses.

If you think your patient has interstitial cystitis, for example, you would probably move on to cystoscopy or potassium sensitivity testing. If you think your patient has endometriosis, you may perform a laparoscopy. If colorectal cancer is a concern, then referral for a colonoscopy might be the best option.

In general, we should be guided in our differential diagnosis by seeking those diagnoses for which we have the best evidence of causal or associative roles in chronic pelvic pain. These include interstitial cystitis, irritable bowel syndrome, endometriosis, depression, myofascial pain, and chronic pain syndrome. This does not mean we will never diagnose disorders for which the evidence of association with chronic pelvic pain is weak; it just means that these are not the diagnoses that we should seek initially.

We must not be surprised, moreover, when our patients have more than one diagnosis. In fact, we should anticipate and expect more than one. And more often than not, the pain itself will be a diagnosis and not just a symptom. Although it is frustrating to us and to our patients, in some cases chronic pain syndrome may be the only diagnosis that can be confirmed. ■

New System Less Invasive in Polyp, Myoma Removal

LAS VEGAS — An operative hysteroscopy system is as effective as a conventional loop resection for removing polyps and myomas of mild to moderate severity, according to a study of 97 patients presented at the annual meeting of the American Association of Gynecologic Laparoscopists.

"This technique may offer an effective alternative to conventional loop resection. … There is very little bleeding and excellent distention of the endometrium," said Dr. Linda Bradley of the Cleveland Clinic. In addition to being less invasive, hysteroscopy tends to create fewer chips and debris and less clouding than a surgical resection, she said.

Dr. Bradley has received financial support from Smith & Nephew, which manufactures the hysteroscopy system used in the study.

A total of 94 lesions (73 polyps and 21 myomas) were randomized to treatment with operative hysteroscopy in 48 patients, and 73 lesions (51 polyps and 22 myomas) were treated with conventional loop resectoscopy in 49 patients. The patients were adult women with endometrial polyps or type 0 or 1 myomas (or both polyps and myomas) less than 4 cm in diameter.

The average duration of the procedure was slightly shorter for the patients who were treated with operative hysteroscopy: 10.2 minutes vs. 12.7 minutes for those treated with loop resection. The average fluid loss was slightly greater for the hysteroscopy patients than for the loop resection patients (313 mL vs. 323 mL). Neither difference was statistically significant.

Four patients in the operative hysteroscopy group were converted to the loop procedure. Eighteen adverse events were reported in the hysteroscopy group, and aside from the conversions, the most severe events included two fluid intravasations and two cases of endometriosis. Eight adverse events were reported in the loop resection group, including two cases of headache and two cases of backache, but these were not severe.

Some concerns remain about fluid deficits in patients who undergo operative hysteroscopy, but the judicious use of saline solution can minimize the potential for fluid problems, Dr. Bradley said.

—Heidi Splete