A 45-Year-Old Man With Low Back Pain and a Numb Left Foot

James N. Weinstein, DO, MS, Discussant

DR DALEY: Mr S is a healthy, active 45-year-old attorney and father of 5 children who has low back pain and a numb left foot. He lives in a suburb of Boston and his medical insurance is through a managed care plan in Massachusetts.

Mr S has experienced intermittent episodes of low back pain after exertion or physical activity for 17 years. He remembers first having an episode of low back pain after playing basketball. During ensuing years, he had occasional episodes of low back pain that responded to treatment with 1 or 2 days of bed rest and nonsteroidal anti-inflammatory agents. He has never had a trauma resulting in a back injury.

Mr S is very physically active. He runs several miles 4 to 5 times per week, logging 700 to 1000 miles annually. He has competed in 6 marathons and expects to run another marathon in 1999. He jogs to ease work stress and to stay fit. He also enjoys skiing in the winter and fly fishing in the summer. He is physically active with his 5 young children.

In the summer of 1997, Mr S moved some furniture and had an excruciating episode of back pain that radiated down his left buttock and leg. He was unable to stand up straight and sought medical attention at a local hospital. He was given a mild narcotic analgesic and a nonsteroidal anti-inflammatory agent and was prescribed bed rest for several days with gradual improvement. Since then, he has experienced numbness in his left calf and left foot without apparent weakness. People who have jogged with him have told him that he limps when he runs, but he notes no pain or weakness while running.

In November 1997, Mr S saw his primary care physician because he was concerned about continuing to jog with a numb left leg and foot. On physical examination, he was noted to have normal lordosis of the lower back without tenderness. He had full muscle strength in all muscle groups and no sensory deficits. Straight-leg raising was negative on both left and right sides. All deep tendon reflexes were intact with the exception of an absent ankle jerk on the left.

His medical history is unremarkable. Two years ago, Mr S had a borderline elevated blood pressure and total cholesterol level and weighed 9 kg more than he currently does. He resumed his running regimen, and his blood pressure, cholesterol level, and weight have returned to normal.

Dr P referred Mr S to an orthopedic surgeon, who obtained lumbosacral spine films and magnetic resonance imaging (MRI). Lumbosacral spine films showed disk narrowing at L5-S1 with small anterior osteophytes and facet arthrosis. Magnetic resonance imaging of the lumbosacral spine showed moderate spinal stenosis at L4-L5 with focal disk protrusion superimposed on a diffusely bulging annulus. Moderate neural foraminal narrowing was present, greater on the left than on the right. There was an L5-S1 disk protrusion resulting in a moderate to marked left neural foraminal narrowing and probable impingement of the left L5 nerve root (Figure 1).

The consulting orthopedic surgeon has recommended lumbar laminectomy with spinal fusion to include instrumentation of the lumbar spine. Mr S asked for neurosurgical consultation as a second opinion. The neurosurgeon advised against surgery but recommended that Mr S stop jogging altogether. Mr S would like to know what might happen to him if he elects not to have surgery at this time. Will he jeopardize his ability to run and jog? If he elects to have surgery, what is the best operation for him, lumbar laminectomy alone or lumbar laminectomy with spinal fusion? What are the advantages and disadvantages of spinal instrumentation in his situation? The dominant priority in Mr S's life is his ability to continue running.

MR S: HIS UNDERSTANDING AND PERCEPTIONS

The first time I experienced any problem with my back was about 17 years ago. I remember it because I had just gotten engaged. I was playing basketball with a group of my friends, and I threw my back out. It was the first time it ever happened to me. It was very painful, but it went away. I am a runner, and over the last 20 years I have probably run an average of 700 to 1000 miles a year. I have run 6 marathons, and back pain is part of the overall muscle pain that I have experienced over the years. Last summer, however, I had a problem with my lower back, moving furniture, sneezing with allergies—I don’t know what it was—but one night I just had a terrible pain. I couldn’t stay in bed, got on the floor, and couldn’t get off the floor. I finally got myself to the emergency department and was given some pain medication and some ibuprofen, and within a few days my lower back really felt fine. But I had a numb sensation in my left foot, which was bothersome when I was running.

I don’t know how long I’ve had this underlying problem, because I really haven’t received treatment for it until quite recently. Although I have been having back problems over the years, clearly the numbness in my leg is new. What do I risk if I just continue doing what I do? I am a low-impact runner. I run probably an 8.5- to 10-minute pace. I run 3 or 4 days a week. I definitely want to run a marathon in the future. I’ll be ready for one a year from now. I guess my concern is that I don’t want to...
injure myself. I want to know what I’m risking by not having the surgery. Of course, I’m also interested in the probable outcome of surgery. What are the chances that my problem is going to be fixed?

I have to jog. It’s the thing that I’ve found is a great way for me to manage stress in my life, to stay healthy. I enjoy it and I need it for my blood pressure and for general fitness.

**DR P: HIS UNDERSTANDING AND PERCEPTIONS**

This is not the usual patient who has pain and is uncertain how he wants to return to his activities. Mr S continues to work full-time. He’s interested in returning to a very active running program. I’m curious whether spinal surgery will have any impact on his activity to return to that kind of activity. I’m also curious whether epidural steroid injections, which I know seem to only delay the need for surgery, are useful in patients like Mr S who don’t have pain but primarily have neuropathic symptoms related to disk disease. I’m curious to learn what things will be like for him in the years to come. I think my patient will want to know if this is a permanent cure or if it is something that just keeps him in shape for the next 5 to 6 years, and he might need another procedure down the line.

**AT THE CROSSROADS: QUESTIONS TO DR WEINSTEIN**

What is the epidemiology and pathophysiology of low back pain with herniated disks? What is the natural history of this condition without treatment? What additional medical therapies might be tried and what are their risks and benefits? What surgical interventions should be considered and what are their risks and benefits? What is the role of bed rest? What role exists for alternative treatments such as chiropractic, acupuncture, massage, ice, heat, and physical therapy? What is the role of epidural steroid injections in treating patients? What is the role of exercise in preventing recurrence? What do you recommend for Mr S?

**DR WEINSTEIN**: Mr S is an active attorney who loves to jog, ski, fly fish, ocean surf, and play with his 5 children. This past summer is the first time that he experienced back pain associated with leg symptoms. Sometimes it is difficult to help patients like Mr S in decisions about what to do, especially with the varying opinions he has received from different physicians.

**History**

The word *sciatica* first appears in the literature not in scientific papers, but in Shakespeare’s play *Timon of Athens*, in which the character Timon cries out, “Thou couldst, sciatica, cripple our senators as lamely as their manners.” Today, many have targeted the intervertebral disk as a cause for low back pain and sciatica. Basic science and clinical studies suggest great variance in clinical presentation and in the cause-and-effect relationship of the disk and its adjacent nerve roots. Acute compression of a normal nerve root does not always cause pain. Instead, it can cause numbness, paresthesias, and/or motor weakness. This is true with Mr S, who has some numbness in his left calf and foot without any pain or weakness.

**Epidemiology**

Regardless of how one measures the prevalence of back pain in developed countries, it clearly is one of the most common and costly musculoskeletal problems. Nearly 75% of the population may suffer from back problems at some time during their lives. Mr S has had intermittent episodes of low back pain for the past 17 years. Idiopathic low back pain is generally benign and self-limited in most individuals, but recurrences are expected and occur in 40% to 80% of patients. On the other hand, research regarding the prevalence of disk herniations is limited because of continued disagreement on definition and classification of cases. Because not all lumbar disk herniations produce symptoms, and cross-sectional and longitudinal studies of asymptomatic patients using MRI are impractical, most data are based on symptom reports or insurance or hospital data.

Data from the US National Health Interview surveys (1985-1988) revealed that 4.1 million persons in the United States annually reported “intervertebral disk disorders.” The highest prevalence rate was found in the 45- to 64-year-old age group (23.7 per 100 persons). Kelsey et al reported associations between disk herniations and sedentary activities and characteristics such as driving; chronic cough and chronic bronchitis; lack of physical exercise; participation in baseball, golf, and bowling; suburban residency; and pregnancy. Jobs involving lifting, pushing, and pulling were not found to be associated with increased risk of herniated nucleus pulposus. In more recent studies, frequent lifting of heavy objects and twisting were both identified as significant risk factors. The number of hours spent in a motor vehicle (as well as the type of vehicle) and smoking were also associated with increased risk. In this study, pregnancy, height, weight, and participation in sports were not shown to be risk factors.

**Pathoanatomy**

Mr S experienced an acute attack this summer, but it is not clear whether his symptoms were associated with a herniated disk. Such acute symptoms are common, yet their origins and variations in presentation remain enigmatic. Mechanical compression alone is not the sole cause of radicular pain, dysfunction, or, in Mr S’s case, residual numbness. Recent models of lumbar radiculopathy suggest that the mechanisms underlying thermal hyperalgesia are probably due, in part, to a local chemical irritant such as proteoglycans released from a disk, an autoimmune reaction from exposure to disk tissues, an increased concentration of lactic acid, and/or a lower pH around the nerve roots. In addition, production of phospholipase A₂, infiltration of immune response cells, and cytokines such as interleukin 6 have some cause-and-effect relationship with
Ipsilateral straight-leg raising

Impaired ankle plantar flexion

Quadriceps weakness

Ankle dorsiflexion weakness

Great toe extensor weakness

Patella reflex

Sensory loss

Table 1.—Estimated Accuracy of Physical Examination for Lumbar Disk Herniation Among Patients With Sciatica

<table>
<thead>
<tr>
<th>Test</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ipsilateral straight-leg raising</td>
<td>0.80</td>
<td>0.40</td>
<td>Positive test result: leg pain at &lt;60°</td>
</tr>
<tr>
<td>Crossed straight-leg raising</td>
<td>0.25</td>
<td>0.90</td>
<td>Positive test result: reproduction of contralateral pain</td>
</tr>
<tr>
<td>Ankle dorsiflexion weakness</td>
<td>0.35</td>
<td>0.70</td>
<td>HNP usually at L4-5 (80%)</td>
</tr>
<tr>
<td>Great toe extensor weakness</td>
<td>0.50</td>
<td>0.70</td>
<td>HNP usually at L5-S1 (60%) L4-L5 (40%) L5-3 (30%)</td>
</tr>
<tr>
<td>Ankle plantar flexion weakness</td>
<td>0.06</td>
<td>0.95</td>
<td>HNP usually at L5-S1</td>
</tr>
<tr>
<td>Quadriceps weakness</td>
<td>0.01</td>
<td>0.99</td>
<td>No comments</td>
</tr>
<tr>
<td>Impaired ankle reflex</td>
<td>0.50</td>
<td>0.60</td>
<td>HNP usually at L5-S1; absent reflex increases specificity</td>
</tr>
<tr>
<td>Sensory loss</td>
<td>0.50</td>
<td>0.50</td>
<td>Area of loss poor predictor of HNP level</td>
</tr>
<tr>
<td>Patella reflex</td>
<td>0.50</td>
<td>Not applicable</td>
<td>For upper lumbar HNP only</td>
</tr>
</tbody>
</table>

*Data are from Deyo13 and Deyo et al.14 HNP indicates herniated nucleus pulposus.

radicular symptoms.12 The associated degenerative changes at the L4-5 and L5-S1 levels may or may not be contributory.

Clinical Presentation

The most important aspect of the evaluation of low back pain with possible nerve root herniation is the history and physical examination. The patient often describes back and leg pain, with the leg pain often involving below-the-knee symptoms. For patients with herniated disks, the accuracy of the medical history can be extremely valuable. Typically, true radiculopathy produces pain radiating below the knee, usually to the foot or ankle, and is often associated with some numbness or paresthesias. Coughing, sneezing, or a Valsalva maneuver often aggravate the pain. Mr S does not exhibit this type of pain. Originally he had back pain and left-leg symptoms that sounded radicular, but he currently has only some partial numbness of his left foot in an S1 distribution. Sciatica is such a sensitive finding (95%) that its absence almost rules out a clinically important disk herniation, although it is only 88% specific for herniation. In contrast, the sensitivity of pseudoclaudication in detecting spinal stenosis is 60%, whereas the combination of pseudoclaudication and age greater than 50 years has a sensitivity of 90% (specificity, 70%).

A physical examination that reveals nerve root tension signs further suggests true radiculopathy. For the sciatic nerve, this generally means straight-leg raising. For the femoral nerve, however, this means the femoral nerve stretch test (flexing the knee with the patient prone). If we define a positive straight-leg raising test as reproducing the patient’s sciatica at less than 60° of leg elevation, we can estimate the sensitivity and specificity of this test for lumbar disk herniations. Table 1 suggests that straight-leg raising is moderately sensitive but relatively nonspecific in the diagnosis of a herniated disk. Crossed straight-leg raising occurs when straight-leg raising on a patient’s healthy leg elicits pain in the leg with sciatica. This test is less sensitive but substantially more specific than ipsilateral straight-leg raising. Thus, this test suggests concordance with the diagnosis, whereas ipsilateral straight-leg raising is more effective in ruling out the diagnosis. Mr S has neither a positive ipsilateral nor positive contralateral straight-leg test result. Because almost all clinically important lumbar disk herniations occur at the L4-5 or L5-S1 levels, the most common neurologic impairments are weakness of the ankle and great toe dorsiflexors related to the L5 nerve root, reduced ankle reflexes related to the S1 nerve root, and sensory deficits in the feet in the distribution of the L5 and S1 nerves. Mr S has an absent left-ankle reflex and some subjective numbness but no weakness.

Diagnostic Studies

Mr S had lumbosacral spine films that showed disk space narrowing at L5-S1 and some degenerative changes in the facet joints. Radiographic films and other images are generally unnecessary for patients with low back pain. The Quebec Task Force and the Agency for Health Care Policy and Research (AHCPR) guidelines recommended plain x-ray films only in the face of neurologic deficits or in those patients older than 50 years or younger than 20 years in the presence of fever, trauma, or findings suggestive of cancer. The findings on Mr S’s MRI showed moderate spinal stenosis at L4-5 with focal disk protrusion and a diffusely bulging annulus with some concomitant foraminal narrowing on the left side (Figure 1). There is also an L5-S1 disk protrusion with impingement of the left L5 nerve root. Magnetic resonance imaging and computed tomography should be used even more selectively than radiographs and ordered only when one is considering a surgical intervention. Because findings consistent with herniated disk, disk degeneration, spinal stenosis, and other disorders are often found in people who do not have symptoms (Table 2), valid interpretation of these imaging tests always requires correlation with the history and physical examination.

If we look at the physical examination and the diagnostic test results, we notice these tests are far from perfect. Thus, diagnosis is inherently a probabilistic exercise. For example, in a patient like Mr S, without appropriate history, physical findings, or associated anatomical evidence, one could precipitate an ill-advised cascade of clinical interventions, especially when the tests are done too early in the clinical course or in the absence of appropriate surgical indications. Physicians who seek to reassure themselves and their patients by obtaining these highly sensitive tests may be exposing their patients to greater risk. In the case of Mr S, the diagnostic images may not be causally related to his current symptoms or physical findings. Therefore, any consideration of surgery may not produce a predictable outcome.

Natural History

The natural history of sciatica and disk herniation is not quite as favorable as for simple low back pain, but it is still excellent. Approximately 50% of patients recover in the first 2 weeks, and 70% recover in 6 weeks. Both Hakelius and Weber treated patients with sciatica nonoperatively with very good results. Thirty-eight percent of Hakelius’ patients improved in the first month, 53% in the second, and 78% in the third. In Weber’s series, 25% of patients admitted with documented disk herniation improved after a 2-week hospital stay. However, 25% remained significantly symptomatic and were surgically treated. The remaining 126 patients in that study were randomized to nonsurgical and surgical treatment. At 1 year, good results were found in 90% of surgically treated patients compared with 60% in the conservative group. In the nonsurgical group, 17 patients had undergone surgery because of intolerable pain. At 4- and 10-year follow-up, the results were similar in the 2 groups. At 10 years, return of muscle
function was the same regardless of treatment, as was sensory function, which remained abnormal in 35%.

**Additional Medical Therapies**

**Exercise.**—Exercise will prevent the adverse effects of inactivity; the musculoskeletal system requires activity to function optimally. Experimental and clinical studies have demonstrated that immobilization causes disorganization, weakening, and shortening of connective tissues. A few studies demonstrate that if patients perform repeated end-range lumbar flexion and extension movements, back pain intensity and location benefit by decreasing the distribution of radiating pain. This is called the centralization phenomenon, and it is a predictor of a more rapid recovery without surgery. Exercise can also prevent deconditioning, but the type of exercise may be important. No data suggest that running is harmful for someone with Mr S’s symptoms and physical findings. Exercise could have beneficial metabolic effects on the mechanism underlying the sciatic pain. Therefore, I would not dissuade Mr S from running, as it appears to be a necessary part of his daily wellness routine. In fact, unless his symptom pattern changes, I would encourage it.

**Manipulation.**—There remain many anecdotal reports of beneficial outcomes and sudden recovery from manipulative and traction therapies. The mechanisms for possible beneficial effects are unclear. Most of these treatment methods are based on biomechanical theories, but no clear experimental evidence shows that nerve-root entrapment, as seen in the MRI of Mr S, can be resolved by forces applied through exercise and activity.

**Steroids.**—The indications for epidural steroids have included acute and chronic pain, back or leg pain, and a diagnosis ranging from acute herniated nucleus pulposus to end-stage degenerative disk disease in spinal stenosis. As a result, well-controlled studies of comparable groups of patients are lacking. Hypothetically, steroids act to decrease pain by reducing inflammation of the nerve root. The current literature, however, cannot specifically support the use of epidural steroids in acute disk herniations because most patients get better regardless of treatment, and most studies have not adequately separated patients to allow subgroup analysis.

Some studies suggest that the lack of efficacy of epidural steroids is related to patients having a significant number of previous treatments for their pain, a greater dependence on medications, or pain that does not necessarily increase with activity. Lack of employment has also been predictive of poor long-term results. Technically, failure to apply steroid medication to the appropriate area could also cause treatment failure. Renfrew et al. showed that, even in experienced hands, blinded placement of the injection needle was optimal in only 60% of cases. They recommended fluoroscopic control and contrast administration to eliminate incorrect needle placement and inadvertent venous injections.

**Other Options.**—Little information is available regarding other nonsurgical treatments. The Institute for Research in Extramural Medicine has recently reviewed the available literature on acute and chronic low back conditions. Analysis of treatment methods were reviewed relative to scientific validity. Through 1985, only 50 articles meeting the criteria for well-controlled prospective randomized studies were found. In this analysis, brief bed rest and back school information programs were ineffective. Nonsteroidal anti-inflammatory medication and muscle relaxants were found to be effective by nonrandomized controlled trials. Although a vast array of these other nonsurgical treatments exists (manipulation, braces, heat, ice, biofeedback, traction, massage, acupuncture, psychological support, etc), no scientifically valid evidence suggests that such methods improve the natural history of herniated lumbar disk or spinal stenosis. The recently published Agency for Health Care Policy and Research Clinical Practice Guideline *Acute Low Back Pain Problems in Adults* reiterates these findings.

**Surgical Interventions**

In the Weber study, there were no differences between the 2 treatment groups at 4- and 10-year follow-up. The Weber study, however, has critical flaws, including a large number of crossovers from the nonsurgical to the surgical group. The study also suffered from its biased randomization scheme as well as small sample sizes and insensitive outcome measures. Results after 1 year were better in the surgical group, but this difference diminished with time. Thus, the only apparent benefit from surgery was more rapid relief from sciatica. Therefore, the clinician’s task is to select patients for surgery for whom nonsurgical measures are likely to fail and who can be reasonably expected to have symptomatic relief and return to relatively normal function after a procedure.

Five clinical criteria have been suggested to select surgical candidates: (1) impairment of bowel or bladder function; (2) gross motor weakness; (3) evidence of increasing impairment of root conduction; (4) severe sciatic pain persisting or increasing despite a course of bed rest; and (5) recurrent episodes of sciatica. Most of these indications would be considered relevant by most surgeons. Mr S meets none of these criteria.

The only emergent indication for surgery would appear to be cauda equina syndrome related to a massive disk herniation. This rare event has been reported in only 1% to 2% of all patients who undergo lumbar disk surgery. Physicians should be aware, however, that the most consistent finding in these patients is urinary retention, with a sensitivity of about 90%. Unilateral or bilateral sciatica, sensory and motor deficits, and abnormal straight-leg raisings are all common with this condition, with sensitivities of 80% or more. Sensory disturbances in the saddle distribution of the perineal area have a sensitivity of about 75%, and anal sphincter tone is diminished in up to 80% of such cases. Patients with a progressive neurologic deficit are usually treated with early surgery.

McCulloch and colleagues have described their criteria for the diagnosis of sciatica resulting from a herniated disk and have stated that without an accurate clinical diagnosis and confirmatory imaging, surgical outcomes are poor. Their contraindications for surgery include the following: (1) incorrect patient selected; (2) incorrect diagnoses; (3) incorrect level for surgery; (4) a painless herniated disk; and (5) technical issues. Mr S does not fit this scenario either. Prolonged symptoms, abnormal illness behavior, a compensable work situation, cigarette smoking, and age older than 40 years may contribute to a negative surgical outcome and should also be taken into consideration, particularly if more than 1 of these factors is present. There is now substantial evidence that psychological and social factors are critically important in low back disability. Several cohort studies show these factors are important at much earlier stages than previously believed.
In general, the indication for surgery is pain, and the decision to perform surgery is influenced by the patient’s preferences. Mr S has no pain. If surgery is proposed and carried out, it must be justified by having a reasonably high rate of success, limited risk and complications, and a manageable monetary cost to the patient and society. It is increasingly important for the clinician to include patient preferences in the decision-making process. Thus, the clinician should present the best available evidence and incorporate the patient’s preferences in making their cooperative choices. In the case of Mr S, his desires to continue to jog, work as an active attorney, and maintain his very busy family life are essential lifestyle elements to consider in the decision process. Knowing that Mr S is risk averse and desires to continue his normal activities if he is in no danger is critical information in this case. This information, combined with the risks and benefits of each treatment option, encourages Mr S toward a preference-based treatment plan that would most likely lead away from surgical intervention.

Surgical Results.—Although in appropriately selected patients, disk excision for sciatic symptoms is often successful, it is not always the case. Approximately 60% of patients will have complete relief of their symptoms. Of the remaining 40%, 15% will have persistent disabling symptoms leading to further evaluation, treatment, and possibly surgery. In the United States, approximately 200 000 surgical procedures involving lumbar disk excision are performed each year. If a minimum of 15% of these procedures fail to improve the patient’s symptoms, or make them worse, it is reasonable to assume that at least 30 000 people per year fall into the failure group. Among highly selected patients with severe sciatic symptoms and no major back component, more than 90% can expect relief of lower extremity pain when the procedure is properly performed. When leg and back pain are present before surgery, however, sciatic relief approximates 80%, but low back pain relief is only in the 50% range.

Cost-effectiveness.—A cost-effectiveness study of lumbar discectomy for patients with herniated disk unresponsive to initial medical management suggests that surgery increased average quality-adjusted life expectancy by 0.43 years during the decade following treatment, a benefit similar to extending an additional year of life. If a minimum of 15% of these procedures fail to improve the patient’s symptoms, or make them worse, it is reasonable to assume that at least 30 000 people per year fall into the failure group. Among highly selected patients with severe sciatic symptoms and no major back component, more than 90% can expect relief of lower extremity pain when the procedure is properly performed. When leg and back pain are present before surgery, however, sciatic relief approximates 80%, but low back pain relief is only in the 50% range.

In considering laminectomy with or without fusion for Mr S, one must first ask why. Mr S is 45 years old and has a stable spine with some degenerative (aging) changes on his diagnostic images (MRI). With only an absent ankle reflex and some subjective sensory findings, surgery offers him no better outcome. If one did consider surgery, suggesting fusion with instrumentation is inappropriate. A “simple” decompression of the lateral recess would be the most predictable and least debilitating approach in this case and would have the lowest morbidity and earliest functional return. This approach, however, would not guarantee an improvement in his sensory or reflex findings. I would recommend Mr S continue his activities as tolerated without impending risk or harm. One could reassess Mr S if any change in his clinical picture suggested that a surgical approach would have a more predictable outcome.
Conclusion

Often we see patients like Mr S who are interested in why they are not “just right.” In his case, he wonders why he has a partial change in sensation in his left foot. Patients may assume with modern technology and newer treatments that they may be able to rid themselves of such annoyances. Simply stated, that’s not true. When there is a clear cause-and-effect relationship with associated signs and symptoms, diagnostic testing and possible treatment alternatives should be discussed. Less testing often means less treatment but does not sacrifice good health or translate into worse outcome.

QUESTIONS AND DISCUSSION

Mr S: My main questions were, “Can I continue running?” and “Can I continue marathon running?” and I understand that would actually be good for me.

Dr Weinstein: Marathons are painful, even for those who don’t have back symptoms. I suggest that you continue to run, because that’s what you want to do, and I think there’s minimal, if any, risk in doing so.

An Orthopedist: Is there any value to passive modalities for people with back pain, such as massage and other nonconventional medical treatments like acupuncture?

Dr Weinstein: In the AHCPR guideline review, there was little evidence to support passive physical therapy (eg, heat, ice, massage, manipulation, braces, biofeedback, traction, etc). Continuing your activities as you normally do is the best way to go. New studies suggest that spinal manipulation may be no better than the Mackenzie physical therapy technique or a booklet in affecting patient function, disability recurrence, subsequent utilization, or costs of services, although patients treated with manipulation were significantly more satisfied with decreased symptoms. With little difference between these modalities, we need to conduct more studies to find the answers to these questions. In general, what patients do for themselves may be the most appropriate and best thing.

An Internist: As a primary care physician, when should I order imaging studies of the back?

Dr Weinstein: Rarely, ifever. If there are any “red flags”—bladder symptoms, loss of motor function, acute change in neurologic function—I’d probably have the patient see the clinician who would potentially intervene to assess the patient and then get the appropriate study, if any. I’d suggest that the consulting surgeon order those studies only if the or she is going to consider surgery.

An Orthopedist: I wonder if motor and sensory problems from herniation would be dramatically improved if we just went to surgery immediately.

Dr Weinstein: I don’t think we understand the disease process well enough to do what you’re suggesting. I’d be afraid that we’d be intervening on people that would get better anyhow.

An Orthopedist: Can you say something about a patient’s perceptual and thought process around pain and stimulation? The cognitive behavioral approaches—are they important?

Dr Weinstein: These are very important. I spend more of my time counseling than I do operating. We need to understand patients’ perceptions about their health and their understanding of disease processes. It is hard in an office visit to go through what we went through today and know that the patient understood what we said. Newer methods of incorporating patient preferences and utilities into the decision-making process must be sought. Shared decision making is one such tool. In studies using shared decision making, patients’ preferences are part of the decision process. This must be considered as the many new paradigms in health care are being formulated. Variations in practice can in part be attended to by incorporating a patient’s preferences into difficult elective medical decisions.

A Physician: Is the patient satisfied that his dilemma has been resolved?

Mr S: Yes, I am. It’s been rather interesting to go to an orthopedic surgeon whom I respected, who told me I absolutely, positively had to have a spinal fusion and that I had to stop running immediately, but that within 3 months of the fusion, I would be able to resume running. Then I saw a neurosurgeon, whom again, I was very impressed by, who told me I was crazy to run and that I was not a surgical candidate, but that if I did have a spinal fusion, I could return to running only after 1 or 2 years because it takes that long to heal. I swallowed that advice and tried to be a man about it. Everything I read said you can bike or swim. I hate swimming, so I bought a racing bike, which has been fun. But I have to say, I consider it an ultradangerous activity. The tire is very thin, there are no treads on it. I’m riding down this country road where I live, with cars going by me, and I’ve almost killed myself a couple of times already, in only 2 trips out. So, when Dr Weinstein said no surgery and you can run, I was totally elated. I ran 5 miles Friday, I biked about 16 or 17 miles on Saturday, and I ran 5 or 6 miles Monday at luncheon. My symptoms are the same. I’ve got numbness in my leg and every now and then my lower back hurts. I feel great!

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References

A 28-Year-Old Woman With Multiple Moles, 1 Year Later

In July 1997, Dr June Robinson discussed a 28-year-old woman with fair skin and multiple moles.1 She discussed the patient's risk factors for developing malignant melanoma, screening guidelines and skin self examination, and following patients at risk for developing melanoma. We asked the patient, Ms G, and her dermatologist, Dr V, to comment on the year that has passed.

MS G, THE PATIENT

Dr V checked me out because I noticed that a mole on my back was a bit bigger and brown around the edges. Turns out I need to have it excised as well as one on my stomach. I'm back was a bit bigger and brown around the edges. Turns out I need to have it excised as well as one on my stomach. I'm

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