I was at lunch the other day with my medical biller. I am not her only client and she has a long list of specialties that she serves. I found out over salads that she has been suffering with lower back pain for two to three years. When she asked for my opinion, I requested that she give me a little history.

She is 64 years of age and mildly overweight. She only has pain with walking and standing. Essentially, she has stopped exercising because walking causes her moderate pain after one block, thus the weight gain. The pain does not refer into the glutes, hips, or legs; it stays along the lower back (like a belt) at L4/L5 bilaterally. She had just left the office of her orthopedic surgeon who had ordered x-rays and an MRI of her lumbar spine, and recommended cortisone injections.

Running through my differentials, I came up with a couple:
1. Central canal stenosis
2. Degenerative joint disease
3. Discogenic pain

Without referral symptoms, I know there is enough space for the central canal, so although she was given a diagnosis of stenosis, I don’t think that is the source of her pain. When I get the film, considering her age, there will be some degenerative changes that may be contributory. Lastly, she has no pain with sitting and no problem first thing in the morning, so I essentially am leaving discogenic pain alone for now.

From her history, I gleaned that she has a problem with weight bearing and my guess is she is putting too much stress on the posterior aspect of the vertebral body and joints. In Essentials of Skeletal Radiology: Third Edition, Yochum states that facet tropism is found in 20 to 35% of population, most commonly at L5/S1, but also at L4/5. (p. 314) Interestingly, tropism is not congenital but acquired. The film will help determine if the stress is on the body or the joint. Either way, she has to get the stress off the joint for her to have any relief.

As we finished lunch, I watched to see how she transitioned from a seated to a standing posture. She had no problem and no indication of deranging a disc after sitting for almost an hour. I then saw her posture. She had a severe anterior pelvic tilt. Without saying anything else, I had her walk until her symptoms started. After 10 minutes, she started having pain. I stopped her and demonstrated how to posterior tilt her pelvis and then had her start walking again.

After about five minutes, she had no pain, but she was growing tired of holding the posture. I knew what I needed to do now—help her maintain a neutral posture to reduce the stress on the posterior aspect of the vertebral body and facet joints. Then, I would have her perform exercises to increase her functional capacity to hold the position.

Lee et al.1 published a study recently. The purpose of the study was to assess whether a one-day application of posterior pelvic tilt taping (PPTT) using a kinesiology tape would decrease anterior pelvic tilt. Sixteen women (mean age, 23.63 ± 3.18 years) were enrolled in this study. Anterior pelvic tilt was measured using a palpation meter before PPTT application, immediately after PPTT application, one day after PPTT application, and immediately after PPTT removal after one day of application. Posterior pelvic tilt taping was applied in the target position (posterior pelvic tilt position).

The anterior pelvic tilt was decreased during and after one day of PPTT application (before and after kinesiology tape removal) compared with the initial angle (all P < .05). The authors concluded that PPTT may temporarily decrease anterior pelvic tilt.
If I use a high-quality kinesiology tape, I may be able to reduce the stress on the joints via proper pelvic position for three to five days. Moreover, I would combine exercises to help build the muscles to prevent the anterior pelvic tilt. Stuart McGill, PhD, who is a leading spinal researcher from the University of Waterloo, recommends side planks for seven-second holds (two to three sets of 10-12 reps) to help build the internal obliques, which eccentrically prevents anterior pelvic tilt. The magic of the tape would give her the kinesthetic sense of the proper pelvic position while exercising and walking. Birdwhistell\(^2\) noted that those who receive kinesthetic guidance learn 30 times faster than those who learn from auditory or visual learning alone. Applying the tape may help her develop the kinesthetic sense of where her pelvic position should be, thus reducing stress on the posterior aspect of the joint.

She still has a long way to go before she is pain-free, but I feel like we are headed in the right direction. I will refer her to a colleague who is close to her so she can follow up and get the care she needs. Ultimately, it will be up to her to do the exercises consistently. When she can maintain the proper posture without thinking about it, she will no longer need the tape to reinforce the position. Using the research to help guide my decision-making process means that this an evidence-based approach, and having her do it on her own without relying on a provider for all of the care makes it a patient-centered approach. Both are wins in my book.

References:

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