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Sacroiliac Joint Pain

Milan P. Stojanovic, M.D., FIPP

Sacroiliac (SI) joint pain is a common, yet challenging condition. In patients with chronic low back pain, 15-25% suffer from SI joint pain.

The SI joints are designed primarily for stability. Their functions include the transmission and dissipation of truncal loads to the lower extremities, limiting x-axis rotation, and facilitating parturition. Compared to the lumbar spine, the SI joints can withstand a medially directed force 6 times greater, but only half the torsion, and 1/20 of the axial compression load. The anterior one-third of the interface between the sacrum and ilium is a true synovial joint whereas the posterior two-thirds is comprised of an intricate set of ligamentous connections, functioning as a connecting band between the sacrum and ilia for the purpose of limiting motion in all planes of movement.

The most common causes of pain originating from the SI joint are related to mechanical trauma or altered gait: prolonged lifting and bending, torsional strain, leg-length discrepancy, scoliosis, improper footwear, hip osteoarthritis, falls, athletic injuries and motor vehicle accidents. Anatomically, pain originating from the SI joint can also be divided into intra-articular (arthritis, infection) and extra-articular etiology (ligamentous injury, myofascial pain and enthesopathy). SI joint pain is most commonly unilateral. The differential diagnosis of

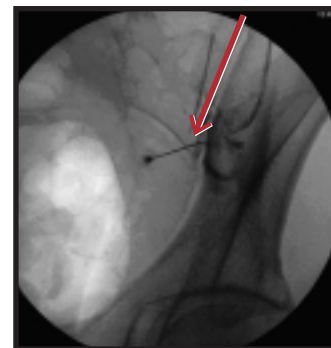


Figure 1: Fluoroscopically guided right SI joint injection. Note the red arrow indicates the insertion point of the needle into the postero-inferior aspect of the SI joint. Note the intra-articular spread of contrast medium.

CONTINUED ON BACK

WE ARE EXPANDING TO CAPE COD



MILAN STOJANOVIC, M.D.



STEVEN BARNA, M.D.

We are pleased to announce the opening of our Cape Cod office, which is conveniently located on the Hyannis/West Yarmouth border. Both Milan Stojanovic, M.D., and Steven Barna, M.D., are dedicated to serving the Cape Cod community. Dr. Stojanovic and Dr. Barna have consistently cared for patients throughout Cape Cod since 2002 as the Co-Medical Directors of Pain Management at Cape Cod Hospital. As the only American Board of Medical Specialties certified and American College of Graduate Medical Education fellowship trained Interventional Pain Physicians on Cape Cod, they are uniquely well-qualified to provide the full spectrum of non-surgical spine and pain care. Dr. Stojanovic and Dr. Barna are recognized educators and authorities in Interventional Pain Medicine, both having been Assistant Professors at Harvard Medical School, as well as Medical Directors of the Pain Clinic at Massachusetts General Hospital.

bilateral SI joint pain should include seronegative and HLA-B27-associated spondyloarthropathies. Laboratory workup may include: CBC, ESR, CRP, ANA, RF, and HLA-B27.

The diagnosis of SI joint pain is often difficult to establish. Lumbar facet arthropathy, lumbar discogenic pain from degenerative disc disease, greater trochanteric bursitis, iliotibial band syndrome, and hip joint arthropathy can all mimic SI joint pain. Pain from the SI joints can radiate to the buttocks, lower extremity, groin, abdomen, and even

the foot. There are many physical exam tests for diagnosis of SI joint pain, with tenderness to palpation over the SI joint, Patrick's test and Gaenslen's test being the most common. Unfortunately, neither the physical examination nor radiological imaging findings of sacroiliitis on x-ray or CT are reliable in the diagnosis of SI joint related pain. The gold

standard to make a reasonably accurate diagnosis of SI joint related pain is to perform a diagnostic block of the SI joint with a small amount of local anesthetic under fluoroscopic guidance.

The most commonly accepted treatment of SI joint pain is a multi-disciplinary approach using the combination of: stabilization exercises, heat/cold therapies, manipulation, NSAIDs, correction of leg length discrepancies with shoe lifts, and radiologically guided SI joint injection with steroid. Many clinical studies have found radiologically guided SI joint injections with steroid to provide good to excellent pain relief lasting from several months to 1 year (Figure 1). In patients for whom intra-articular steroid injections provide only short-term pain relief, a new method consisting of radiofrequency (RF) denervation of the nerve supply of the SI joint (L4 medial branch, L5 dorsal ramus, S1 to S3 lateral branches) should be considered for long-term benefit (Figure 2).



Figure 2: Position of RF cannulas for denervation of nerve supply of the SI joint (L4 medial branch, L5 dorsal ramus, S1 to S3 lateral branches) for a long-term benefit.

References:

1. Cohen SP. Sacroiliac Joint Pain: A Comprehensive Review of Anatomy, Diagnosis, and Treatment. *Anesth. Analg.* 101(5); 1440-1453; 2005

CONDITIONS

- Back pain (and leg pain)
- Neck pain (and arm pain)
- Headache and facial pain
- Complex regional pain syndrome (RSD)
- Shingles and Post-herpetic neuralgia
- Shoulder, hip, and other joint pain

PROCEDURES

- Epidural steroid injection
- Facet joint injection
- Radiofrequency lesioning
- Sacroiliac joint injection
- Joint injections
- Discography

With over 30 years of combined experience, our caring, highly qualified, and skilled ABMS Board Certified and ACGME fellowship trained Interventional Pain Physicians are unique in New England.

OUR LOCATIONS

