

Posterior Sacroiliac Joint Ligaments and their Potential Influence on the Low Back and Pelvic Pain

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The sacroiliac joints (SIJs) encompasses articular surfaces situated between the sacrum and iliac bone. The SIJs are supported by an important network of ligaments, which are responsible for transmitting the mechanical force from the lower limb to the pelvis and to serve as an attachment point for 35 muscles [1]. The 35 muscles work together in synergy with the fascia and ligaments in order to produce movement and ensure the stability of the trunk and lower extremities. The mobility of the SIJs are estimated at around 2 - 4 degrees. The SIJs are an important generator of low back pain (LBP) [2].

Hamidi-Ravari, Tafazoli, Chen and Peret [3] have argued that the majority of people with LBP would also have SIJs pain. The posterior complex of SIJs ligaments consists of the following ones. Sacrotuberal, sacrospinous, long dorsal, and iliolumbar ligament. Kurosawa, Murakami and Aizawa [4] have demonstrated that the posterior SIJs ligaments could refer pain in the lower limbs, and thus would depending on the site of the ligaments under irritation.

Cohen, Chen, and Neufeld [5] estimated around 15% to 30% of patients with SIJ pain would have a non-radicular origin. This could support the findings of Kurosowa, *et al.* [4] about the referred pain from SIJs posterior ligaments. The gold standard to diagnose and treat the SIJs' pain, are represented by invasive injection in the SIJs because health care providers believe that the pain is coming from the joints, whether there has been no evidence to support this statement [6]. Another option to treat LBP and SIJs pain is the surgery [7].

Kurosowa, *et al.* [4] argued the issue of an underestimated prevalence of SIJ pain because no specific research focused on SIJ pain originating from posterior SIJ ligaments has been done. The biomechanical complex strategy of the SIJs requires from health care providers a special interest during the clinical assessment of a low back with or not referred pain in the lower limb pelvis, and or low back. A mean used in allopathic medicine to perform the diagnosis of SIJ pain are the corticoid injections [6,8], which first aim is to evidence the source of SIJ's pain and secondly to reduce the irritation of the posterior SIJs ligaments [4], and at the same time to decrease the pain and discomfort and harm of the patients.

The scientific evidence supports in case of low back pain or referred pain in the lower limb to assess the SIJs posterior ligaments, in order to optimize the diagnosis of LBP or pelvic pain and referred pain in the lower limbs. Therefore, the various health care providers (MD, DO, PT, Chiropractors), are requested to also assess the SIJs posterior ligaments during the differential diagnosis of LBP, pelvic pain or referred pain in the lower limbs. This, with the aim to optimize the treatment and such to reduce the pain from which the patient is suffering.

Bibliography

1. Hungerford B., *et al.* "The pattern of intra-pelvic motion and lumbo-pelvic muscle recruitment alters in the presence of pelvic girdle pain". 3rd edition. Edinburgh, New York, Churchill Livingstone (2007).
2. Manchikanti L., *et al.* "Epidemiology of low back pain in adults". *Neuromodulation* 17.2 (2014): 3-10.
3. Hamidi-Ravari B., *et al.* "Diagnosis and current treatments for sacroiliac joint dysfunction: A review". *Current Physical Medicine and Rehabilitations Reports* 2.1 (2014): 48-54.
4. Kurosawa D., *et al.* "Referred pain location depends on the affected section of the sacroiliac joint". *European Spine Journal* 24.3 (2015): 521-527.
5. Cohen SP., *et al.* "Sacroiliac joint pain: a comprehensive review of epidemiology, diagnosis and treatment". *Expert Review of Neurotherapeutics* 13.1 (2013): 99-116.
6. Scholten PM., *et al.* "Short-term efficacy of sacroiliac joint corticosteroid injection based on arthrographic contrast patterns". *PM & R: The Journal of Injury, Function, and Rehabilitation* 7.4 (2014): 385-391.
7. Friedly J., *et al.* "Epidemiology of spine care: The back pain dilemma". *Physical Medicine and Rehabilitation Clinics of North America* 21.4 (2010): 659-677.
8. Poley RE and Borchers JR. "Sacroiliac joint dysfunction: evaluation and treatment". *The Physician and Sportsmedicine* 36.1 (2008): 42-49.

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