

Is the Facet Syndrome a Myth?

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Lumbar facet syndrome is a very convenient diagnosis for mechanical low back pain (LBP). The signs^{1,2} of a classic facet syndrome are: pain on lumbar hyperextension and decreased range of motion in any plane but especially in extension and rotation, local facet tenderness, absence of neurologic deficit or root tension signs; on lumbar flexion there may be relief, and straight-leg raising may or may not be normal. Pain is usually of a deep aching variety and may extend to the buttock, hip, and even below the knee but not into the foot. But most of these symptoms and signs may also refer to pain of discogenic origin.²

"The function of the lumbar apophysial joints is to allow limited movement between vertebrae and to protect the discs from shear forces, excessive flexion, and axial rotation."³

Structures in the lumbar spine that receive a nerve supply are the zygapophysial joints, the ligaments of the posterior elements, the paravertebral muscles, the dura mater, the anterior and posterior longitudinal ligaments, and the intervertebral disks.⁴ It becomes clear that functional tests cannot specifically stress the facet joints. Firmly holding the patient's hips and pelvis, and asking the patient to bend forward to determine if relief occurs, to help pinpoint a facet involvement or creating pain on lumbar extension versus flexion cannot specifically incriminate a facet since all of the tissues mentioned above will also be stressed. While the facet joints are part of the picture of mechanical LBP, and chiropractic adjustments move zygapophysial joints, there are, of course, many other factors to be considered as to the reason patients experience relief from adjustments.

Unfortunately, at our present state of knowledge, the diagnosis for LBP or for that matter any diagnosis incriminating a mechanical cause for LBP (as differentiated from, for example, a herniated disk compressing a specific nerve) is speculative. Nachemson states that "although today there is a better understanding of pain, the pathomechanism of low back pain is unknown."⁵ He goes on to state that orthopedic surgeons who operate on patients with ill-defined back syndromes should realize that rarely are diagnoses scientifically valid, nor is the effectiveness of surgery proven by acceptable clinical trials.

While most authorities agree that the facet joint capsule has free nerve endings and is a probable source of pain, according to Jackson² and others,^{1,6} the "diagnostic capabilities for testing the presence of a facet syndrome have been proven invalid."

A common method for diagnosing lumbar pain are diagnostic blocks where an anesthetizing agent is injected to determine if pain is relieved. According to Jackson,² who examined the literature and has performed three separate studies of his own regarding the injection of facet joints, the facet is not a common or clear source of significant pain and the facet syndrome is not a reliable clinical diagnosis.²

While many studies involving facet injection have been favorable, Jackson states that there are very few randomized controlled prospective studies. He states that the facet joint can only hold about 1-2 ml and many studies using more than that amount rupture the capsule and spreads the anesthetic to outlying areas. Jackson² in one study evaluated 390 patients with facet joint injections. He found that patients with more pain on lumbar extension and rotation did not get more pain relief after facet injection. He concluded that more than 90 percent of the patients with the signs of facet syndrome, did not respond better to facet injection.

Jackson² quotes a study by Lorenz et al.,⁷ which demonstrates that the upper lumbar facets L2-L3 in the lumbar neutral and extension positions have higher compressive loads than the L4-L5 level. He uses this argument to prove that facets are not primary sources of pain since clinically most back pain occurs in the lower L4-L5 levels. Of course he does not mention the fact that due to greater disk degeneration at the L4-L5 level the pressure on the L4-L5 facets will increase accordingly.⁸

I suppose since no one at the present time can pinpoint the exact source of pain in the mechanical low back problem, it is easy to prove that no one location is the source of the pain. For years there has been an argument between the disk and the facets as the main source of pain. Until someone can definitely prove that the facet is not a principle cause, I, for one, will be using facet syndrome as a plausible diagnosis.

References

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Editor's Note:

Dr. Hammer will conduct his next soft tissue seminar on October 24-25, 1992, in Scottsdale, Arizona. You may call 1-800-359-2289 to register.

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