

PATIENT CASE EXAMPLE

Spondylosis of the Lumbar Spine

Lumbar facet injection using OrthoFlo amniotic fluid allograft in a 50-year-old female with chronic low back pain

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OVERVIEW/DISCUSSION

Facet joint injections are typically done for work up and/or treatment of neck and back pain. The facet joints are integral parts of the spine – each vertebra consisting of a large disk in front and two facet joints in the rear, providing structural support through bone linkage while allowing for the spine to bend and twist with body movements. Facets are synovial joints lined with cartilage, lubricated with synovial fluid and covered by a capsule. Healthy facet joints glide and slide with spinal movement; they also limit over-twisting. Over time these joints may experience wear and tear, with cartilage degradation, thinning of the joint space and bony spurs may form. The facets may also be inflamed i.e., develop synovitis and may be involved in systemic inflammatory diseases like psoriatic arthritis and the spondyloarthropathies such as ankylosing spondylitis.

Pain that comes from one or more facet joints is referred to as facet joint syndrome or arthropathy. Pain is often a diffuse, dull ache found directly over the spine, and can be referred to the buttocks and hips. When the neck is involved, it can be felt in the shoulders and base/back of the skull. Radiologic studies (X-ray, CT or MRI) often reveal degenerative disease in the facet joints, but in patients with synovitis alone, the facet joints may appear radiographically normal.

In this case, and in facet syndromes in general, facet joint injection can be diagnostic as well as therapeutic. In diagnostic injection settings, the facet joint is typically injected with a local anesthetic and corticosteroid under fluoroscopic guidance. Pain levels are evaluated before and after injection. Failure to reduce pain by 75% or more generally indicates lack of facet joint involvement in the pain syndrome. While corticosteroid injections often provide some level of relief, more aggressive treatment, including surgical options, may be required. More recently, biologically active tissue grafts like OrthoFlo are being used with success in this setting.

CLINICAL HISTORY

The patient is a 50-year-old female with spondylosis, without myelopathy or radiculopathy, in the lumbar and Lumbosacral region. She has been treated for chronic low back pain with limited range of motion and quality of life related to lumbar facet syndrome. Previous failed attempts of conservative treatments include: over-the-counter and prescription strength anti-inflammatory medications, skeletal muscle relaxants, topical over-the-counter treatments, prescription strength transdermal preparations, physical therapy, physician directed home exercise and stretch programs, chiropractic manipulations, massage therapy, modalities including heat, cold and TENS unit, and traditional cortisone injections in the facet joints.

INJECTION TECHNIQUE

In prone position, a scout film for fluoroscope was performed to reveal evidence of lumbar degenerative disease including facet disease. Fluoroscope in the right oblique position visualized right L5/S1 and L4/L5 facet joints (Figure 1).

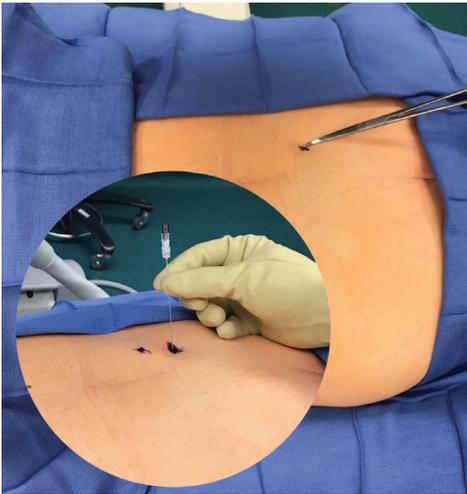


Figure 1

Fluoroscopic visualization of right L5/S1 and L4/L5 facet joints.

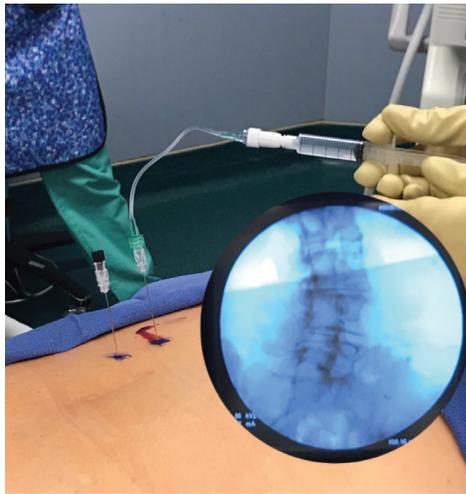


Figure 2

Contrast injected to confirm needle positioning inside the facet joints.

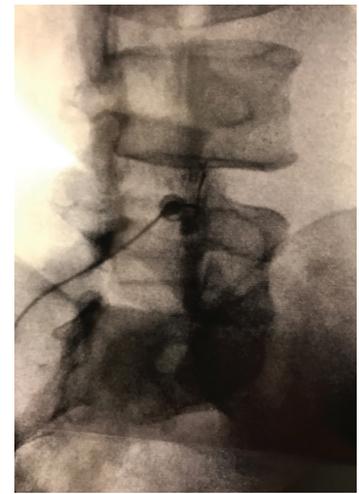


Figure 3

Injection of allograft; 1cc per facet.

After local anesthesia, 1% Lidocaine in a 3 inch 22 gauge spinal needle was directed toward the inferior margin of the right L5/S1 joint. After confirmation of needle position in the AP and lateral views and negative aspiration for blood and CSF, a nonionic contrast material was injected and a clear outline for the right L5/S1 facet joint was noted (Figure 2). Next, approximately 1cc of OrthoFlo was injected (Figure 3). The needle was restyletted and removed. The procedure was repeated for the right L4/L5 level, followed with left L5/S1 joint, followed by the left L4/L5 joint.

POST INJECTION CARE

Standard post-injection care instructions were given. Practice guidelines include ice as desired for local tenderness, as well as Magnesium Oxide (400mg twice daily) as needed to relieve potential muscle cramping or muscle spasm. Patients are advised to stay mobile, resuming normal activity slowly over a course of 7-10 days, with more strenuous exercise delayed at least two days following the injection. Medication, including anti-inflammatories, muscle relaxers and pain medications, may be continued following the injection as needed.

FOLLOW UP

The patient was seen 6 months post-injection and noted to have significant improvement in her symptoms.

CONCLUSION

This 50-year-old female with chronic low back pain had previously been unsuccessfully managed by multiple attempts at conservative treatment including over-the-counter and prescription strength anti-inflammatory medications and failed traditional cortisone injections in the facet joints. Following bilateral facet injections at both L4/L5 and L5/S1, the patient was noted to have significant improvement in her symptoms. This case is one example of how OrthoFlo may be considered as an effective treatment option for modulating inflammation in patients with spondylosis of the lumbar spine.