Facetary Rhizolysis Using the Disc-FX® System

Dr. Jorge Felipe Ramirez, Bogota, Colombia

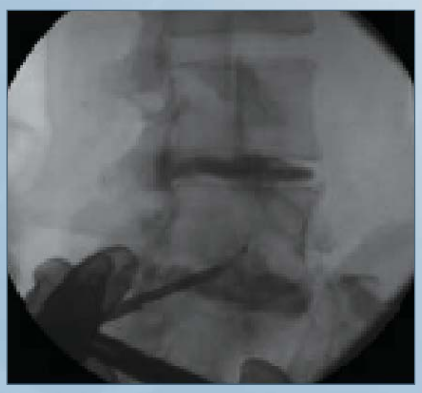
Doctor Jorge Ramirez, Minimally Invasive Spine Surgeon, is the Director of the Spine Surgical Program of Universidad del Bosque and Director of Spine Surgery at Sanitas Organization. He has a 15 year experience with 3000 patients operated using minimally invasive techniques.

Doctor Ramirez has been performing facetary rhizolysis for over 10 years. He has used LASER with very good results and has been using the Disc-FX® System (elliquence-Oceanside, NY). The procedure is simple, safe and provides excellent results for the right diagnosis.

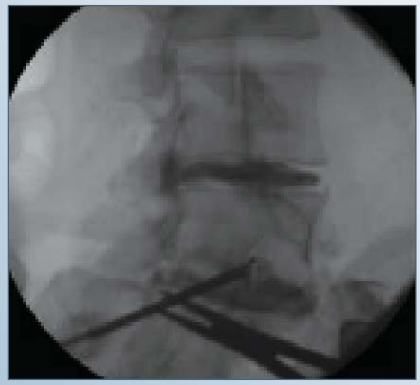
This condition can be treated with open surgery or minimally invasive techniques. In open surgery, a dissection is performed and a cautery is used to burn the facet inervation, the Luska Nerve. Minimally invasive techniques uses a thin needle through which a radiofrequency or laser fiber can be introduced to perform the denervation under local anesthesia. This technique can take as little as 10 minutes. 5-10 cc of anesthetic are administered. An image intensifier is used to visualize the facet. A guide needle is placed. A laser or RF fiber is introduced and energy is delivered to perform the denervation. When using the Disc-FX® System, after local anesthetic is performed, a needle is placed and cannula is inserted under radiologic guidance. The nerve is treated using the Surgi-Max energy source in the Bipolar-Hemo modality, with a power level of 25 for 6 seconds. This procedure is always performed bilaterally. Multiple levels can betreated according to any alterations shown in previous MRI or bone gammagraphy.

One of the most important aspects to consider when diagnosing a patient with lumbar pain is to be able to properly determine if the source of the pain is purely discogenic, facetary or a combination of both. Often the source of the pain is a combination of the two. In his experience with over 500 patients, about 30% of the patients exhibit both pathologies. In such cases, treating only the disc is often insufficient.

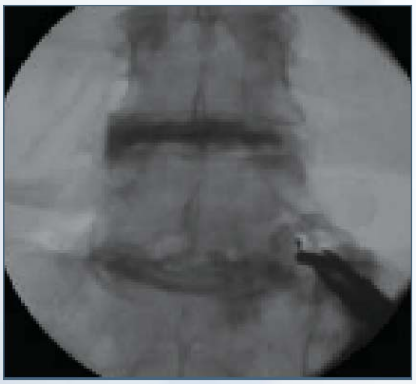
It is very important to understand the relation between disc and facet and address both. In order to ensure a proper diagnostic, an infiltration with corticoids and local anesthetic is pre-operatively performed. If the source of the pain is the facet, the patient will show improvement lasting from a few weeks to a few months. If the patient shows a 30-40% improvement to infiltration, is a clear indicator that the facet and the disc must be treated in order to achieve a good clinical result of the overall procedure.



Oblique view shows discography in L4 and L5-S1 and the Trigger-Flex® in the facete (facetary rhysolisys)



Oblique view shows the Trigger-Flex® held with a forcep to avoid radiating the hand



Ap view with discography at L4-L5 and L5-S1 and the Trigger-Flex® denervating the facet (luska nerve)

Additionally, during an intradiscal procedure, a discography is performed. This greatly helps determine the percentage of thepain that is due to the disc. Many times if 3 levels are performed with negative discography, it is mandatory to target the facet. The disc is always targeted first, unless a previous diagnosis clearly identifies exclusively a facetary arthrosis or a facetary syndrome. In this case the facet is targeted first without treating the disc.

It is very important to consider the disc and the facet as pain generators. Discography is a key element in the diagnosis of lumbar pain along with MRI and bone gammagraphy. If a positive discography is obtained and response to infiltration / MRI, both should be targeted. Results are very good in over 90% of his cases when targeting both. It is ideal to consider a discectomy with facet joint denervation supported with good previous radiographic and infiltration diagnosis.

One of the reasons why intradiscal minimally invasive procedures are often discredited is because many times only the disc is treated and not the facet, leaving some residual pain. This is usually being perceived as a failed procedure. The procedure is complementary to intradiscal procedures. "After 10 years of experience I am truly convinced that when a patient gets an intradiscal procedure and the facets are ignored, some degree of lumbar pain caused by the facet will persist." Ramirez says. The main advantage of treating the facet with Disc-FX® is that it allows the surgeon to treat the disc and the facet with the same device in the same procedure.

This is a very simple procedure and resolves one of the main causes of lumbar pain and incapacitation, such as a facetary syndrome or a combination of a black disc and a facetary syndrome.