Pecora's Orthopedic Low Back Release

Statement from the author:

This technique or protocol was developed through thousands of hours of hands on treatment for low back pain and refined by trial and error. It is a combination of several modalities put together aimed at a specific problem or dysfunction to release restrictions, whether they be skeletal, muscular, neural, connective tissue problems or a hypermobility issue causing pain and discomfort, which can be eased and then referred on for rehabilitation for strengthening.

Note: Massage Therapists cannot diagnose, but can take a thorough history and assessment, thereby pinpointing the problem area. The restriction can then be addressed reducing pain and discomfort and improving functional range of motion as well as quality of life.

Pecora's Low Back Protocol in Detail

1. History
2. Take an assessment specific for low back pain and Pecora's low back approach.

This technique is directed primarily at the problems causing low back pain or what appears to be low back pain. Structurally, this would be L1 to L5, SI joint, hips and pelvis.

Muscles – Extensors (back and gluteal muscles)

Flexors (abdominals and iliopoas muscle)

Oblique or Rotators (side muscles)

Connective Tissue – Tendons, ligaments, fascia, scar tissue, joint capsules, neural tissue.

Reflex Areas – Trigger Points (with definition)

Referred Pain from nerve root involvement.

Propreoreceptor involvement using a neuromuscular dysfunction affecting an imbalance in both postural and phasic muscles creating a distortion about the low back (lumbar spine) and pelvis area.

Example: Hypertonic muscles or muscle spasm.

Technique

1. Patient supine. Reassess problem area found during initial assessment. Stand on the side of the problem area. Flex hip and knee to 90º and slowly rotate the lower trunk towards opposite side. Two things are noticed.

   First a subjective response by patient responding to pain, discomfort or tightness.

   Second, an objective finding by the therapist indicating a decrease range of motion as he or she notices a barrier during passive lower trunk rotation.

   Therapist then determines where and what the restriction is through subjective and objective findings.

   These restrictions, whether they are skeletal, muscles, connective tissue, etc., are treated initially the same. The technique is fine tuned through treatment and reassessment until the area is:

   A. decreased in pain and discomfort (subjective) and ,

   B. shows increased in functional ROM about low back, hips and pelvis (objective).

Short Term Goals: to normalize dysfunctional tissue, as well as neuromuscularly re-educate them.

Long Term Goals: improvement of posture and body mechanics minimize load (strain) to lumbar spine, pelvis, and hips.

Technique is performed using the therapist's knee as a lever. The therapist places his knee at the area of pain, discomfort, or tightness. Therapist then using his body weight, leans over the flexed knee with both arms on top of the knee, and begins moderate

oscillations towards the point of restriction where the knee is placed. The angle of the flexed hip can vary from 90º to 110º, or 45º. Also, abduction or adduction can vary from neutral to either direction depending what the therapist has assessed will work best release to release the restriction. Pressure is applied moderately depending on the size and age of the patient. Oscillations are performed at 10 to 20 repetitions, and the patient is reassessed by performing lower trunk rotation, which has an added value of stretching the mobilized tissue. The therapist then takes up the slack and performs the procedure again until the therapist feels enough progress is made during that session. Next, the therapist again brings the patient into lower trunk rotation, to a new and improved range of motion. Stabilizing patient's hip and thigh, patient is asked to perform knee flexion and extension 5 to 10 reps. Next, with the patient's knee extended, patient is asked to perform ankle pumps 5 to 10 reps. The therapist then assists the patient back into neutral and again assesses the patient's progress by observing subjective and objective results.

Therapeutic Breakdown of the Function of this Technique

Structure: Lumbar L1 to L5. SI Joint, hips and pelvis.

A. Releasing of facet joint and impingement or restriction.

B. Joint capsule release of restricted, i.e. scaring, adaptive shortening, etc.

C. Stimulate proprioreceptor response to decrease hypertonicity and pain, i.e., mechanoreceptor to decrease pain, gogi tendon to relax muscle tissue.

D. Improve mobility in joints where a degeneration process is present.

E. Encourage the body to reduce inflammation by deceasing inappropriate approximation of the joint seconds to pathology and improve blood flow to help flush area.

Muscles, Connective tissue, Reflex areas(trigger points), Nerve Root, Impingement.

A. Normalizing hypertonic tissue.

B. Release of scar tissue.

C. Release of ischemic areas.

D. Release of trigger points and their referral patterns.

E. Decrease of hypersensitive tissue.

F. Encourage the increase of blood flow.

G. Attempt to afford prolonged or temporary relief from nerve impingement either from a disk problem or degenerative changes.

H. Pain relief for pre and post surgical procedures.

I. Neuromuscular re-education of muscular, connective, and neural tissue.

Closing Statement

This is not a panacea. The procedure was developed to stay whether the scope of practice of Medical Massage and/or Manual Therapy. It can and does afford relief of pain ad discomfort, as well as improve functional mobility. Working hand in hand with the patient's physician, as

well as patient education, it might be possible to bring down the staggering numbers of people with low back pain, as reported by "The American Chronic Pain Association." Eleven million people are impaired by back pain and 2.6 million are permanently disabled by it. It is also reported that low back pain affects 31 million adults at any given time.

It may not be possible to reach the results you want with the permanently disabled, but the improvement of quality of life is certainly valid.

Problem – Low Back Pain

Differential diagnosis

Medical Emergencies;

1. Severe continuous abdominal and back pain (abdominal aortic aneurysm)
2. Sudden bowel and or bladder incontinence (cauda equina syndrome).

Progressive weakness in the legs (cauda equina syndrome

3. People with fever and chills, history of cancer with recent weight loss, or who have just suffered a severe trauma.

Acute/Chronic:

Acute LBP from muscle strain.

Acute radiculopathy with neurological deficits.

Chronic Low Back Pain.

Chronic Pain Syndrome.

Low Back Pain

Medical Emergencies:

Description of Condition:

1. Aortic aneurysm:

Can give rise to acute backache when they are enlarging, dissecting or leaking. A suspicious situation is a sudden onset of LBP in an elderly person who may be at rest. Signs of inequality of the pulses may be found with a unilateral or bilateral bruit over the femoral arteries. Occlusion may follow quickly. The aneurysm may be palpable or elongated to from a midline pulsatile abdominal swelling and may be tender. The differential diagnosis is of an exacerbation of pre-existing lumbar spondylosis or a compression fracture of an osteoporatic spine, etc.

2. Cauda equina syndrome:

Sudden loss of bowel and bladder incontinence. Progressive weakness in he legs. Diminuation of reflexes. Hyperactive reflexes may indicate spinal cord involvement. Saddle (perineal) anesthesia.

Causes:

Trauma

Lumbar disk disease

Abcess

Spinal anesthesia

Tumor, metastatic, or CNS elements

Late stage ankylosing spondylitis

Idiopathic

Definition if Cauda Equina: Any lesion that compresses cauda equina nerve roots. The cauda equina is formed by nerve roots caudal to the level of spinal cord termination.

3. People with fever and chills may indicate infection, or osteomyalitis, etc.

   History of cancer with recent weight loss may indicate an exacerbation or metastasis of cancer.

   People suffering from a recent severe trauma may be compromised about the spine and require emergency treatment.

Differential Diagnosis

Acute/Chronic

Acute LBP second to muscle strain:

The majority of episodes acute LBP muscle strain are caused by lifting a heavy object, a sudden movement or a fall. The pain can be very severe and last for several hours, days, or even several weeks.
When muscles are strained or torn, the muscles can become inflamed. Inflammation of the muscles can spasm, causing both severe pain and decreased mobility. Muscles usually heal with time, as they have a good blood supply to bring the necessary nutrients and proteins for healing to take place.

However, after two weeks, muscle weakness can occur second to guarding which can lead to atrophy.

Acute LBP with Radiculopathy and Neurological Deficits:

The treatment plan should fit the severity of the signs and symptoms. It should cover the full gamut of physical and massage therapy, patient education, avoidance of heavy lifting to laminectomy and fusion. The goals should be the reduction of pain and stabilization of the neurologic deficits.
Prolonged inactivity is not beneficial and mobilization should be encouraged once symptoms are stabilized.
Medical management should consist of the use of non-narcotic analgesics and the use of muscle relaxants of symptoms suggest a spasm component.

Chronic Low Back Pain:

When symptoms extend beyond four to eight weeks, the condition has mobbed from acute to chronic. At this point, reassessment of the patient's condition is appropriate.
Neuroimaging should be performed. In the face of true radiculopathy with new or worsening neurologic deficits, a surgical opinion should be considered. Depending upon the full clinical picture, a number of nonsurgical approaches may be considered.

Chronic Pain Syndrome:

A number of patients fail to respond to medical/surgical interventions. Some patients have chronic spinal pain with evidence of structural intraspinal pathology, while others have multiple previous surgical interventions. This condition is called a failed back syndrome.
The goal is to improve functional movement and decrease the perception of pain.