The posterior superior iliac crest is somewhat of an anatomical rarity, in that it is a bone end capped by a bursa that does not encapsulate a joint. This bursa may become inflamed if enough direct local pressure is applied to it for an extended period of time. A slumped posture in a hardback chair may provide enough hard pressure to produce it, sometimes accomplished by putting the feet up. Generally, only one bursa is involved, but bilateral involvement is not unheard of. Some minor, overt swelling may be observable over and around the bursa. Enough interstitial swelling may be present, however, to put some pressure on associated peripheral nerves, most commonly the L3 to L5 nerve roots. Commonly, the patient complains of low back pain, usually diffuse, and at times, of some radiation of pain into the hip(s) or proximal posterior leg(s). The pattern of high skin resistance typically associated with this syndrome is illustrated below.

The high skin resistance pattern commonly associated with the Posterior Superior Iliac Crest Bursa Syndrome

Treatment

Treatment of this condition should be directed at decreasing inflammation and swelling in and around the involved bursa.

Application:

- Place a negative electrode over the involved bursa and a positive electrode higher up in the back. Preset an electrical stimulation
unit to deliver a medium frequency current, with a 10-second on and 10-second off duty cycle, and a current level sufficient to produce a near tetanic contraction in the stimulated muscles. Stimulate for 15 minutes.

- Manipulate the soft tissues over and around the involved bursa to eliminate any existing adhesions.

- Preset the ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.5 W/cm². Ultrasound the inflamed zone, utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes.

- Preset the electrical stimulation to deliver a visible contraction of the local muscles, at 7 Hz. Place a positive electrode over the involved bursa, and a negative placed over a more proximal back site. Stimulate for 20 minutes.

Successful treatment may take place in one or two sessions, but success is dependent on the patient avoiding pressure over the involved bursa. It is not uncommon for this syndrome to accompany a sacral-iliac (S-I) joint syndrome, and is often seen as a secondary effect.

**Trigger Points**

The following trigger point formations may, singly or in combination, imitate or contribute to the pain associated with the sacral-iliac (S-I) joint syndrome: Multifidus (S4), Longissimus thoracis (L1), Longissimus thoracis (T10-T11), Multifidus (L2-L3), Multifidus (S1-S2), Iliocostalis lumborum (L1), Iliocostalis thoracis (T11), Caudal (lower) rectus abdominis, Gluteus medius, and Gluteus minimus.