

Neurogenic and non-neurogenic piriformis syndrome treated with CT guided Depomedrol/Botox Piriformis compartment injections.

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Objective

1. To report the clinical characteristics of patients with the Piriformis syndrome with emphasis on EMG and imaging findings.
2. To evaluate the effectiveness of CT guided Piriformis block.

Background

It has long been suggested, that the proximal Sciatic nerve can be compressed by the Piriformis muscle. However, there is a disagreement with respect to the existence of a specific Piriformis syndrome, the diagnostic criteria, clinical subtypes, and the correct therapeutic approach.

Methods

A retrospective study of patients with buttock pain fulfilling IASP 1994 criteria for Piriformis syndrome. All the patients had medial Piriformis trigger point and positive pace abduction test. All of them underwent imaging studies and EMG FAIR test (flexion, abduction, internal rotation). Patients were followed up after a diagnostic block for a median period of 6 months.

Results

Ten patients were identified, of whom eight were women. The median period of time before diagnosis was three years. The putative etiology was buttock trauma in two patients, prolonged sitting position in another patient, lower extremity length inequality in three patients, and underlying L5 radiculopathy in two patients.

NCV/EMG Showed variable, posture related (hip flexion, abduction, & internal rotation), H wave latency prolongation in seven patients. Two of the patients had active denervation in a L4-L5 myotome distribution. These patients with a “true neurogenic Piriformis syndrome” had neuropathic pain in a sciatic nerve distribution. Eight patients underwent CT guided medial Piriformis injections, with Botox in Five patients (these patients failed a previous “blind” Depomedrol Piriformis injection). One patient had only a blind procedure with transient pain reduction.

Complete to near complete disappearance of buttock pain was observed in six of the patients who had CT guided block with subsequent physical therapy, for a median follow-up time of 6 months.

CT scan of the Pelvis showed minor changes: Atrophy of Piriformis muscle, Piriformis muscle hypertrophy, fibrosis in the superior aspect of the Sciatic notch, and an unusual course of the Sciatic nerve.

Conclusions:

Piriformis syndrome is a myofascial pain syndrome with or without neuropathic pain. It is associated with muscle dysfunction and/or Sciatic nerve entrapment. The diagnosis in most patients is delayed. CT guided muscle injection with either steroids or Botox is an effective treatment.