Inflammation of the inferior musculus gemellus is a rare cause of non-discogenic sciatica. Herein, we report a case of a 51-year-old female with right sciatica, where physical examination suggested piriformis syndrome. After piriformis injection and stretching exercises, symptoms persisted. MRI showed hyperintensity of the right inferior musculus gemellus. Extra-spinal sciatica is often underdiagnosed due to its rarity. The diagnostic utility of MRI in differentiating intractable piriformis syndrome cannot be overstated.
positive and there was tenderness with deep palpation of the gluteal region, the etiology was suspected as piriformis syndrome. Therefore, piriformis injection was administered under ultrasonography (1 mL/7 mg betamethasone and 4 mL of 2% lidocaine). Piriformis stretching exercises were recommended to the patient, and pain began to slightly decrease for a few days, but then increased again. The Visual Analog Scale (VAS) score was 10. Inferior abdominal MRI was acquired to disclose any pathology, which may have compressed the sciatic nerve. An axial T2-weighted image showed increased intensity of the inferior gemelli muscle (Figure 1). Diclofenac potassium (50 mg, three times daily), pregabalin 150 mg twice a day (week 1: 75 mg two times daily, and then 150 mg two times daily), and a combination of tramadol and paracetamol (37.5 mg/325 mg) were prescribed to be used, if necessary. Her complaint resolved after six months with a VAS score of 0.

DISCUSSION

There are several etiologies of extra-spinal sciatica that include traumatic, infective (e.g. psoas abscess) and inflammatory (sacroiliitis) causes, tumor growth, vascular anomalies, endometriosis, and piriformis syndrome. One of the main causes of extra-spinal sciatica is piriformis syndrome. However, other pelvic muscles anatomically near the sciatic nerve are often overlooked.

Murata et al. clearly observed by surgery and reported that stretching of the obturator internus muscle compressed the sciatic nerve. In another study by Meknas et al., six sciatica patients with suspected piriformis syndrome underwent surgery to relieve pressure on the sciatic nerve. The piriformis muscle and tendon were normal in the patients and the obturator internus muscle of each was very tense, slightly hyperemic and hypertrophic. Bano et al. also reported a case of a quadratus femoris tear in a patient presenting with persistent sciatica. Similar to these case reports, our patient developed sciatica due to inflammation of the musculus gemellus.

In conclusion, musculus gemellus abnormalities should be considered as one of the potential cause of sciatica. Magnetic resonance imaging is useful in the differential diagnosis of non-discogenic sciatica from intractable piriformis syndrome, particularly in cases resistant to medical treatment or injection.

Declaration of conflicting interests

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The authors received no financial support for the research and/or authorship of this article.

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