

# Chiropractic Management of a Patient With Perineal Numbness After Arthroscopic Hip Surgery: A Case Report

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## ABSTRACT

**Objective:** The purpose of this case report is to describe the chiropractic management of a patient with postoperative perineal numbness as a result of hip arthroscopy.

**Clinical Features:** A female patient presented to a chiropractic clinic with 7 weeks of ongoing perineal numbness after right hip arthroscopic surgery with labral repair. The patient reported lack of sensation during urination, sexual intercourse, and the insertion and removal of female hygienic products into the vagina.

**Intervention and Outcome:** Conservative care included myofascial therapy to the psoas and obturator internus muscles and instrument-assisted soft tissue mobilization over the obturator internus. Manual manipulation to the pelvis was also performed. The patient reported complete resolution of perineal numbness after 3 chiropractic treatments.

**Conclusion:** With conservative chiropractic management, full resolution of sensation for this patient was achieved. (J Chiropr Med 2016;15:305-309)

**Key Indexing Terms:** *Chiropractic; Arthroscopic; Mobilization; Perineal*

## INTRODUCTION

Safety of surgical procedures has improved greatly in recent years with an ever-growing body of research, newer surgical techniques, and other medical advancements.<sup>1,2</sup> Accordingly, the risk of complications during and after surgical interventions has also dropped drastically.<sup>1,2</sup> Inevitably, though, all medical procedures carry some inherent risk of side effects. Reported complication rates after arthroscopic hip surgery are as high as 27%, with that percentage decreasing to 2% to 10% specifically for cases related to neural injury.<sup>1,2</sup> There are 4 primary reasons for complication of hip arthroscopic surgical procedures. These complications include (a) deep and dense structures that surround the hip joint; (b) the small joint space, which limits the ability to move the instruments around inside the joint space; and (c) the process of distracting the capsule for the surgeon to introduce the instruments into the joint space; also, (d) there are special required materials and tools needed for distracting a hip joint.<sup>3</sup> Nerve damage, specifically of the

pubdental nerve, has been a reported side effect stemming from the tractioning process.<sup>2,3</sup> Furthermore, treatment for pudental neuralgia has been abstract and rather mysterious. The largest series of 170 patients with pudental neuralgia reported cure in 45% and improvement in 22% with surgical neurolysis. In the same study, imaging-guided pudental nerve blocks offered short-term improvement in 65% of the patients.<sup>4</sup>

The purpose of this study is to demonstrate a treatment approach in which soft tissue mobilization and joint manipulation was used with a patient who had perineal numbness after surgical intervention involving a labral repair. There is little evidence in the literature discussing manual therapy to various nerve entrapment sites that may affect the pudental nerve, causing neuralgia-like symptoms.

## CASE REPORT

A 31-year-old female patient had arthroscopic hip surgery to repair a torn labrum. After surgical intervention, the patient was referred to physical therapy for proper postoperative rehabilitation. The therapy was scheduled for 8 to 12 weeks of follow-up care with a doctor of physical therapy (DPT). On the initial visit with the therapist, the patient expressed concern regarding numbness in the perineal area that was local and not extending to the lateral thigh. The original differential diagnosis was a possible nerve compression or entrapment. On the third therapy session, exactly 3 weeks and 6 days postoperative, the

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DPT contacted the doctor of chiropractic (DC) working in the same facility and consulted on the soft tissue findings around the genitofemoral and pudendal nerves. Moderate to severe spasms were located in the right psoas, obturator internus, gemellus, and piriformis. These were addressed by the DPT at that time through soft tissue mobilization. Two days later, the patient noticed a possible change. The patient was cleared by the surgeon to see the DC for the soft tissue dysfunction associated with the neuropathic symptoms.

During the initial visit with the DC, the patient presented with a chief complaint of complete perineal numbness after right arthroscopic hip surgery with labral repair. She was exactly 7 weeks postoperative after right hip arthroscopy with labral repair at the time of presentation. She described total perineal numbness in the vaginal and rectal region that had started immediately after the surgery and had not improved. She indicated that sensation was absent during sexual intercourse, urination, and when inserting or removing tampons. She denied any pain in the genital region. Her surgeon informed her that this complication could have been caused by the position the patient was in during surgery, resulting in nerve compression. The patient was undergoing her proper postoperative rehabilitation per the recommended protocols given by the surgeon. The patient thought her hip strength and range of motion were improving as they should; however, it was not helping the perineal numbness. She also denied numbness in the lumbar spine and lateral or medial thigh.

On examination and health history, it was noted that the patient's body mass index was 25.4. She had conceived 4 children, 3 of them being caesarian births. The patient denied any personal health history or family history related to hip joint pathologic conditions. Objective findings at the time of presentation included soft tissue pathologic condition located in the right psoas, piriformis, gemellus, and obturator internus. The obturator internus, gemellus, and piriformis were more edematous in nature, and there was severe spasming noted throughout the right psoas. Strength testing at the L4, L5, and S1 regions was 5/5 bilaterally. It is important to note that the DC did not perform strength testing of hip flexion, extension, abduction, and adduction per the request by the DPT and the postoperative rehabilitation protocol in place. Sensory testing in the perineal region also was not performed. At the time of the initial presentation, the DC diagnosed the patient with a peripheral nerve compression and/or entrapment to include the pudendal nerve at the obturator internus or an entrapment of the genitofemoral nerve at the psoas muscle. Treatment options were discussed with the patient, regarding whether to treat one of the entrapment sites to help find an exact diagnosis or to treat both areas with the goal of eliminating the perineal numbness as quickly as possible. The patient indicated that she was less concerned about which nerve may be entrapped and wanted complete resolution of her symptoms as quickly as possible.

Initial treatment consisted of a myofascial therapy to both the right psoas and right obturator internus muscles. To perform myofascial therapy to the right psoas, the patient was positioned in supine with her hip flexed to 90°. The doctor's contact was placed on the psoas muscle while the patient actively brought the hip into 5° of extension and contact was held on the psoas. To perform myofascial therapy to the obturator internus, the patient was positioned lying on her left side. The hip was placed into 5° of extension. The doctor's contact was placed on the obturator internus while the patient actively brought the right hip into flexion. The patient's hip was then brought into 25° of external rotation after the patient had reached end range of hip flexion. Graston technique, a form of instrument-assisted soft tissue mobilization developed by David Graston, was then performed over the obturator internus. Chiropractic manipulation was provided in the pelvic region as well.

On the second day of treatment by the DC, 5 days after the initial appointment, the patient noted that the anterior portion of her perineal region did not feel as numb. She indicated that only a very small portion of her inner region was still slightly numb. She could now feel when she was urinating but still could not feel anything during intercourse. On examination at the second treatment, it was noted that there was improvement of the obturator and psoas musculature pathologic conditions. The muscles were not as taut and tender, there was less edema, and the myospasm in the right psoas had decreased. Again, the patient was brought through the same treatment as initially provided.

Eight days later, the patient presented into the chiropractic office for her third treatment. She indicated that the numbness had completely resolved. She reported no pain in her genital region and also stated that her hip had been feeling great. Objectively, the patient still had mild tension and tenderness to palpation in the psoas and obturator internus. Treatment was again provided, consistent with the previous 2 visits. The patient was discharged after that treatment. The patient gave consent for the publication of this case report.

## DISCUSSION

To our knowledge, this is the first case report demonstrating the effectiveness of chiropractic intervention combined with manual therapy to treat perineal numbness after hip surgery.

In the process of performing hip arthroscopic surgery, traction is used to open up the hip joint, allowing the central compartment to be accessed by the treating surgeon. The process and positioning techniques used to traction the hip joint can result in nerve damage secondary to traction injury or injury caused by nerve compression (Fig 1). Current

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