

Femoral Artery Compression Resulting from Iliopsoas Bursitis Post-Total Hip Arthroplasty

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Abstract

This case report discusses femoral artery compression resulting from iliopsoas bursitis in a patient following total hip arthroplasty. The patient, a 65-year-old male, presented with groin pain and diminished lower extremity circulation several weeks post-surgery. Clinical evaluation and imaging studies, including Doppler ultrasound, revealed significant compression of the femoral artery by an inflamed iliopsoas bursa. The diagnosis of iliopsoas bursitis was confirmed, and management included corticosteroid injections and physical therapy, resulting in substantial symptom relief and improved blood flow. This case highlights the importance of recognizing atypical complications following hip arthroplasty and underscores the need for vigilant monitoring of vascular integrity in postoperative patients.

Keywords: Femoral artery; Iliopsoas bursitis; Total hip arthroplasty; Postoperative complications; Vascular compression; Corticosteroid treatment

Introduction

Iliopsoas bursitis is an inflammatory condition of the iliopsoas bursa, often resulting from overuse, trauma, or secondary to hip surgery [1]. Following total hip arthroplasty (THA), various complications can arise, including infections, dislocations, and soft tissue disorders. One such complication is iliopsoas bursitis, which can lead to significant discomfort and functional impairment. In some cases, the inflammation associated with iliopsoas bursitis can cause compression of adjacent structures, including the femoral artery [2]. This compression may result in compromised blood flow to the lower extremity, leading to symptoms such as pain, numbness, and diminished circulation [3-6]. This report details a case of femoral artery compression due to iliopsoas bursitis in a patient who underwent total hip arthroplasty. It aims to emphasize the importance of recognizing this rare but significant complication and the need for timely diagnosis and appropriate management to prevent further morbidity. Understanding this relationship can enhance postoperative care and improve outcomes for patients undergoing hip surgery.

Results and Discussion

The patient, a 65-year-old male, presented with persistent groin pain and symptoms of diminished lower extremity circulation, including numbness and coldness in the right leg, approximately six weeks after undergoing total hip arthroplasty [7]. Clinical examination revealed tenderness in the hip region, with reduced pulses in the femoral artery. Doppler ultrasound imaging was performed, revealing significant compression of the femoral artery due to an inflamed iliopsoas bursa. The bursa was markedly enlarged, and the surrounding soft tissues showed signs of inflammation. Following the diagnosis of iliopsoas bursitis, the patient was treated with corticosteroid injections into the bursa and a course of physical therapy [8]. At follow-up, the patient reported substantial pain relief, and repeat Doppler ultrasound demonstrated improvement in blood flow with reduced compression of the femoral artery. This case highlights a rare but critical complication of total hip arthroplasty: femoral artery compression due to iliopsoas bursitis.

While iliopsoas bursitis is a recognized postoperative complication, its potential to cause vascular compression is less commonly reported

[9]. The inflammation and swelling of the bursa can encroach upon surrounding structures, particularly in the confined space of the hip region, leading to significant symptoms. Prompt recognition of this condition is essential, as untreated vascular compression can result in ischemic complications. This case underscores the importance of a thorough clinical evaluation and appropriate imaging when patients present with atypical symptoms post-surgery. Management strategies may include conservative measures, such as corticosteroid injections and physical therapy, as demonstrated in this case, which resulted in significant improvement. In cases where conservative treatment fails or symptoms persist, surgical intervention may be necessary to decompress the affected area. In conclusion, this report emphasizes the need for heightened awareness among clinicians regarding the potential for iliopsoas bursitis to cause femoral artery compression following total hip arthroplasty [10]. Early diagnosis and intervention can significantly improve patient outcomes and prevent further complications.

Conclusion

This case illustrates the occurrence of femoral artery compression due to iliopsoas bursitis in a patient following total hip arthroplasty. It highlights the importance of recognizing this rare complication, which can lead to significant vascular impairment and symptoms. Prompt diagnosis through clinical evaluation and imaging is crucial for effective management. Conservative treatment, including corticosteroid injections and physical therapy, proved successful in this instance, alleviating symptoms and restoring blood flow. This case underscores the necessity for vigilant postoperative monitoring and a comprehensive approach to evaluating atypical presentations in patients after hip surgery. By increasing awareness of this potential

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Received: 02-Oct-2024, Manuscript No: crfa-24-151208; **Editor assigned:** 04-Oct-2024, Pre QC No: crfa-24-151208 (PQ); **Reviewed:** 16-Oct-2024, QC No: crfa-24-151208; **Revised:** 23-Oct-2024, Manuscript No: crfa-24-151208 (R); **Published:** 30-Oct-2024, DOI: 10.4172/2329-910X.1000583

Citation: Toshiba T (2024) Femoral Artery Compression Resulting from Iliopsoas Bursitis Post-Total Hip Arthroplasty. Clin Res Foot Ankle, 12: 583.

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complication, clinicians can improve patient outcomes and prevent serious sequelae associated with vascular compression.

Acknowledgement

None

Conflict of Interest

None

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