

Rapid Progression of Hip Osteoarthritis after Intraarticular Hip Steroid Injection

Introduction

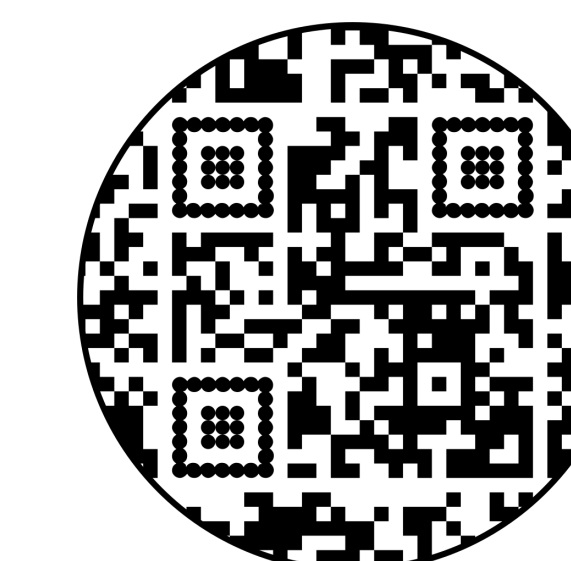
Intraarticular corticosteroid injections are used for symptomatic management of hip osteoarthritis. Fluoroscopic guidance can be used for both procedural safety and accuracy. Complications from this procedure are rare and within those complications there is an even less chance of vascular injury. Other concerns have been raised in the literature regarding the risk of rapidly progressive osteoarthritis (RPOA) and rapidly destructive hip disease (RDHD) following these interventions. Within the hip joint, the medial femoral circumflex artery (MFCA) is vital for femoral head perfusion and is important in understanding the potential mechanism of joint degeneration after injection.

Methods

As the case report is devoid of patient identifiable information, it is exempt from IRB review requirements as per Ochsner's policy. Patient informed consent was obtained for this case report to be presented.

Recent studies have documented a small but clinically significant risk of RPOA and RDHD following intraarticular corticosteroid injection.

Imaging



Case Report

A female in her early 70s with radiographically confirmed (on x-ray from 11/2022) moderate right hip osteoarthritis underwent a single fluoroscopy-guided intraarticular corticosteroid injection (in 3/2023 with Kenalog 40 mg) utilizing an anterior approach. The procedure was technically uncomplicated, with no immediate adverse events. Within two months, the patient continued to develop worsening severe right hip pain and functional decline. Repeat imaging demonstrated rapid joint space loss and extensive subchondral sclerosis and cystic changes consistent with rapidly progressive osteoarthritis. There was no evidence of infection or systemic inflammatory disease to contribute to the clinical course. The presumed mechanism was disruption of the vascular supply to the femoral head, specifically involving the MFCA.

Discussion

Fluoroscopic guidance for hip injections reduces neurovascular complications; however, any compromise of the MFCA can have consequences for the health of the joint. Recent studies show a small but significant risk (ranging from 0.6% to 7%) of RPOA and RDHD following intraarticular corticosteroid injection, especially in older patients or pre-existing joint space. Multiple mechanisms may contribute to this process, so careful patient selection and post-injection monitoring is vital.



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