

TRANSIENT OSTEOPOROSIS HIP (TOH) DURING PREGNANCY. IS IT SO RARE?

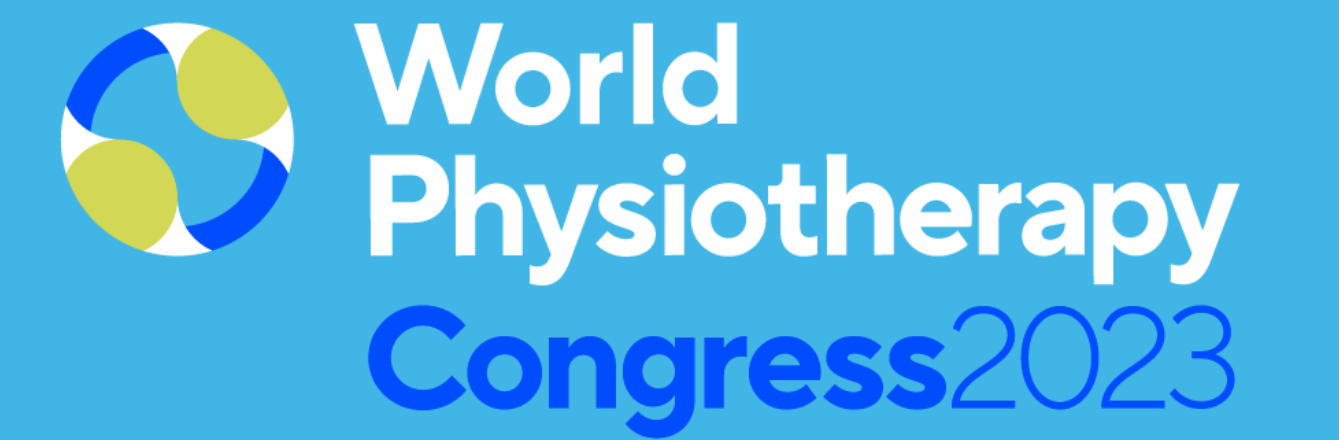
A CASE SERIES OF CLINICAL DIFFERENTIAL DIAGNOSIS



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PRESENTED AT:



Introduction

- Pelvic Girdle Pain (PGP) is a common syndrome during pregnancy. Although it is often a benign phenomenon, some exceptions may exist. Transient Osteoporosis of the Hip (TOH) is one of them.
- TOH is a rare, severe disorder of unknown etiology that typically occurs during the third trimester of pregnancy. The pathology involves a high level of pain and considerable disability and is diagnosed by MRI examination. MRI findings may include diffuse femoral head & neck bone marrow edema +/- signs of fractures.
- Increased physical activity, continued unprotected weight-bearing and manual therapy techniques may increase load on the fragile bone, exposing the patient at risk to pathological hip fractures. Therefore, early diagnosis is crucial to prevent possible complications and medical malpractice.

Purpose

This presentation aims to increase physiotherapists' awareness by highlighting the clinical findings that would suggest "Red Flags" and the need for further investigation.

Participants

This is a case series presentation of 12 pregnant and post-pregnant patients who were clinically diagnosed with TOH in the PGP outpatient clinic during the last couple of years.

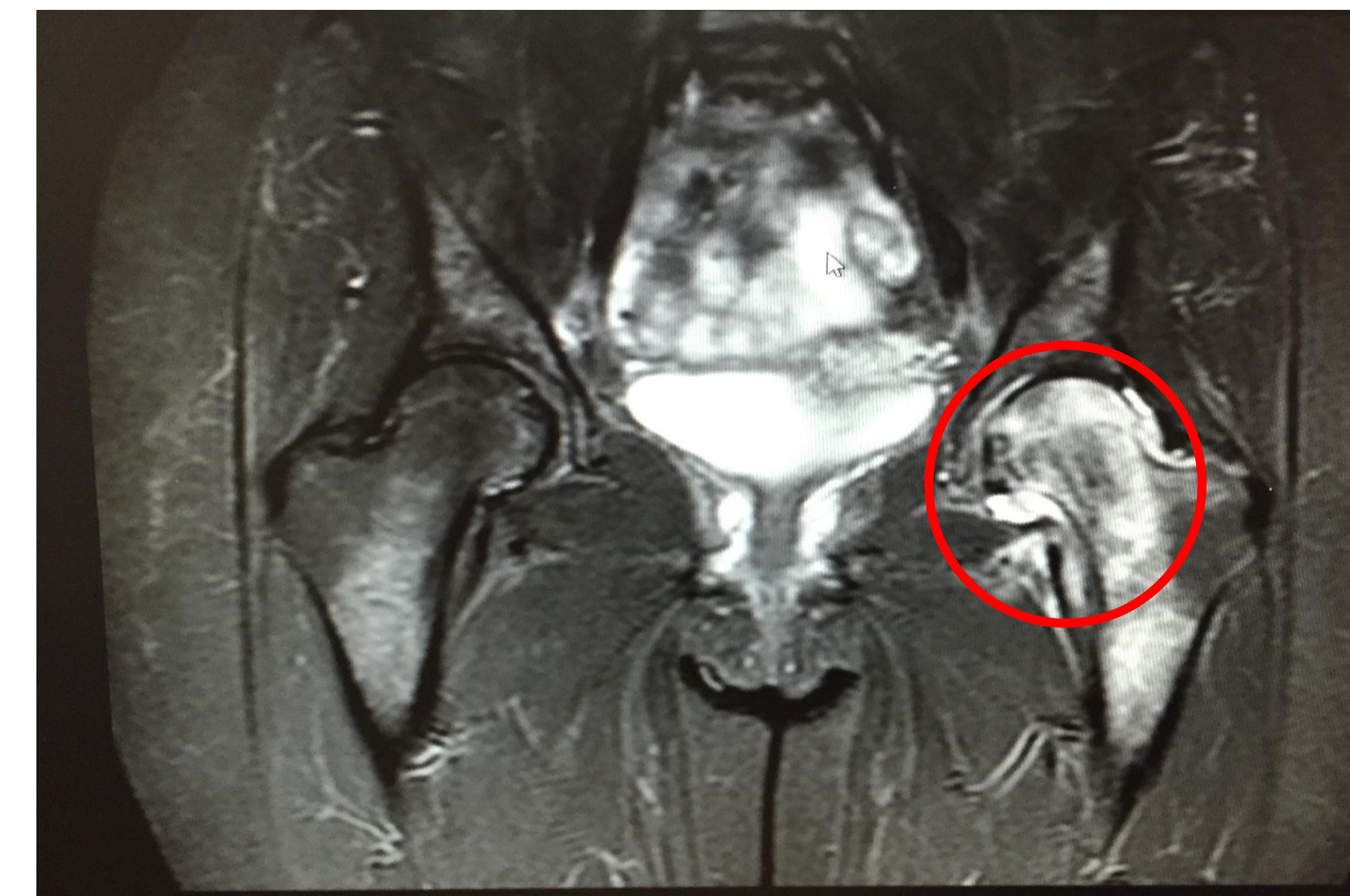
Methods

General demographic and pregnancy specific data were collected. Patients underwent a thorough physical examination focusing on specific hip tests including Log Roll test and Internal Rotation Over Pressure (IROP) test. IROP test was found to be the most sensitive test for detecting intra-articular hip pathologies compared with the gold standard of intra-articular injection. Clinical findings highlight those important for making a clinical diagnosis of this rare and severe condition.

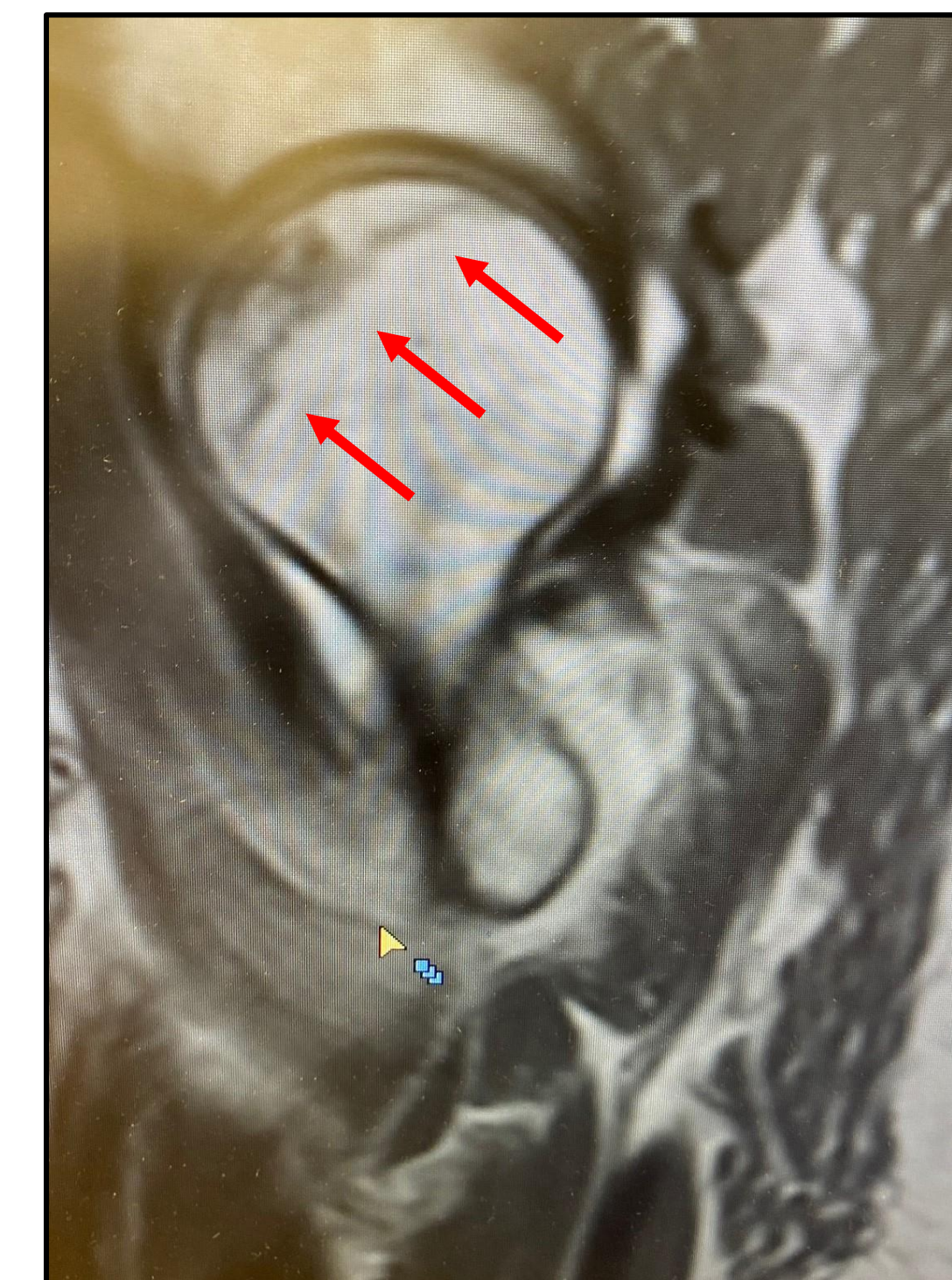
Results

- The average age of the patients was 34.5 (range +/- 6). 50% of them (6) were in their first pregnancy, 25% (3) were in their second pregnancy and the remaining three were in their 3rd, 6th and 7th pregnancy respectively.
- Most of the patients became symptomatic during the third trimester. 4 of them noticed symptoms from earlier gestational age (17th-24th).
- Main clinical examination findings were severe pain around the anterolateral Hip joint with difficulties in weight bearing due to increased pain, with significantly reduced Hip ROM in the supine position, mainly to IR.
- None of the patients in this series were able to reach 90 degrees of flexion for the IROP test due to pain. All were positive for pain and movement was restricted in the Log Roll test in 0 hip flexion.
- All 12 patients had MRI confirmation of bone edema and were diagnosed with TOH. 8 had Femoral head fractures and 1 proceeded to Total Hip Replacement (THR) due to Femoral head bone disruption. Fractures were common in patients who had a longer time between the onset of symptoms and diagnosis.
- MRI tests revealed that 5 out of 12 patients had bilateral TOH.

Results



Femoral head edema



Femoral head fracture



Femoral head edema

Discussion

The combination of severe Hip pain in pregnant or post-pregnant women, with reduced ROM and WB ability, should direct us to perform a thorough Hip physical examination. None of the patients in this case series had sufficient hip flexion ROM to be tested by the IROP. All patients were positive for pain and movement restriction in the less provocative Log Roll test. Therefore, intra-articular pathology was suspected. All 12 patients had MRI confirmation of bone edema and TOH. Patients with long-lasting symptoms also had some fractures, suggesting early detection is valuable. In contrast to the literature, some of the patients in this series were symptomatic long before the third trimester, a finding that should be taken into consideration.

Conclusions

In an era where physiotherapy is gradually becoming a self-referral profession in an increasing number of countries, a thorough physical examination can be a good first step as a clinical screening tool before using an expensive MRI examination. Early detection of TOH is crucial for Hip joint full recovery.

Acknowledgments

It is a case series in a clinical setting. Informed consent of the patients was taken.

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