



CASE REPORT

# A Rare Cause of Postpartum Back Ache: Osteitis Condensans Ilii

Arshiya Khan<sup>1</sup> · Asma Nigar<sup>1</sup> · Farid Mohammed<sup>2</sup> · Aprajita Pankaj<sup>1</sup>

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## Introduction

Osteitis condensans ilii is a rare benign condition, marked by sclerosis of the iliac bone, found either incidentally in asymptomatic patients or in those presenting with lower back pain. Imaging and clinical findings are localized to the sacroiliac joint and, thus, must be differentiated from other conditions that have a similar presentation (spondyloarthritis, degenerative arthritis, septic arthritis). It does not involve the joint space, is not progressive, and most commonly presents in the absence of laboratory value abnormalities.

The prevalence of osteitis condensans ilii is 1–2.5%. It mostly occurs in females who are in their third trimester of pregnancy, or during the postpartum period, with a tendency to recur in subsequent pregnancies [1]. The likely explanation for this is pregnancy-related hormonal changes, mechanical overload of sacroiliac joints and ischemia due to compression of the abdominal aorta leading to sclerosis of iliac bone. The occurrence in nulliparous women and in men may be due to mechanical over stress.

The distinct radiological features in the absence of any blood abnormality help in arriving at a diagnosis. The triangular area of bony sclerosis on the iliac side of the inferior part of the sacroiliac joint on a plain X-ray of pelvis antero-lateral view is specific [2].

## Case Presentation

A 22-year-old female, P1L1, postpartum day 30, delivered vaginally at a local hospital, presented in Obstetrics and Gynecology OPD of our Institute in September 2021, with complaints of lower back ache since 10 days, bilateral lower limb weakness since 7 days and burning micturition since 7 days.

On examination, the vitals were within normal limits. Tenderness was present on left gluteal region and in the midline at the area of coccyx. Systemic and local examinations were unremarkable. Basic investigations revealed a low hemoglobin (moderate anemia), raised white blood cell count and Urine routine was suggestive of bacteriuria. Ultrasound abdomen was suggestive of cystitis. The patient was started on antibiotics, anti-inflammatory and pain medications. One unit packed red blood cell was transfused to correct the anemia. Also, a reference was sent to the department of Orthopedics. A pelvic X-ray of both hip joints, anterolateral view, was advised, which indicated pathology in iliac bone, adjacent to the sacroiliac joint. (Fig. 1). The orthopedics team advised to continue with pain medications, anti-inflammatory medicines and bed rest.

The patient's symptoms, anemia and cystitis were corrected but back ache did not improve and the patient had difficulty in walking. A non-contrast CT of pelvis was advised by the orthopedics team. The CT showed symmetrical sclerosis at the bilateral iliac aspect of sacroiliac joint. There was no evidence of marginal erosion, joint space reduction and ankylosis, which was suggestive of osteitis condensans ilii (Fig. 2). Thus, the patient was diagnosed with osteitis condensans ilii, which was predisposed by pregnancy.

She was advised to continue with anti-inflammatory medicines and bed rest. The pain gradually started to settle, and the lower limb weakness improved. The patient was discharged after 15 days and is on regular follow-up.

Dr. Arshiya Khan is a Professor and Head of Department; Dr. Asma Nigar is a Professor; Dr. Farid Mohammed is a Professor and Head of Department; Dr. Aprajita Pankaj is an Assistant Professor.

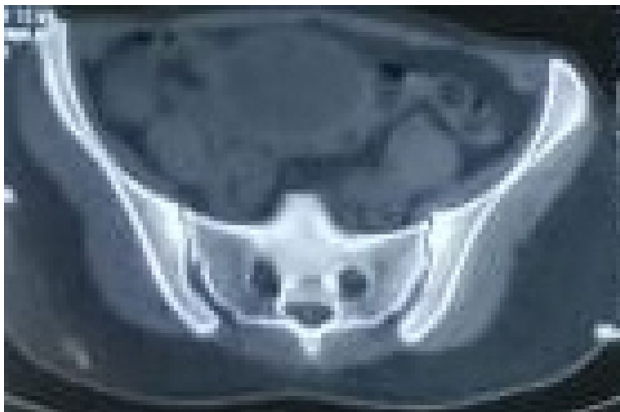
✉ Aprajita Pankaj  
aprajita.pankaj29@gmail.com

<sup>1</sup> Department of Obstetrics and Gynecology, Integral Institute of Medical Science and Research, Lucknow, India

<sup>2</sup> Department of Orthopaedics, Integral Institute of Medical Science and Research, Lucknow, India



**Fig. 1** X-ray pelvis with bilateral hip joint



**Fig. 2** Non-contrast CT pelvis

## Discussion

Low back pain is a common complaint during pregnancy and in the postpartum period. It is a debilitating condition that needs attention. Most back pain settles after pregnancy with conservative measures, while in some, back pain may persist and can hinder their normal daily activities. Osteitis condensans ilii, a rare cause of low back ache, has been attributed to this. However, the etiology of the condition is not clear.

Osteitis Condensans Ilii is a benign condition typically seen after pregnancy and is not associated with any inflammatory arthritis. The specific radiological findings are diagnostic.

Important differential diagnoses to be kept in mind, relating to sacroiliac pathology, include rheumatoid sacroiliitis, seronegative, acute sacroiliac strain, piriformis syndrome, ischio-gluteal bursitis, focal Paget's disease, and primary hyperparathyroidism.

The condition is self-limiting; hence, conservative management including anti-inflammatory medications and physiotherapy is usually effective [3]. Some case reports have mentioned that intra-articular (sacroiliac joint) corticosteroid injection may have a role [3]. While some have mentioned surgical procedures [4], our patient responded to the trial of conservative management and was discharged from the hospital after 20 days. The patient is on regular follow-up, and her symptoms have subsided.

## Conclusion

Osteitis condensans ilii is a benign self-limiting condition seen after pregnancy in young women with low back pain. It is important to recognize this condition, as it may potentially be confused with sacroiliitis. Conservative treatment with analgesics and physiotherapy are the cornerstone of management.

Current literature reveals very little information regarding osteitis condensans ilii. Correct diagnosis and reassurance can yield satisfactory results in such patients. Primary care physicians and other specialists dealing with patients suffering from back pain need to be aware of these rare benign disorders.

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## Declarations

**Conflict of interest** The authors declare that there is no conflict of interest.

**Informed Consent** Written informed consent was obtained from the patient to use imaging for the publication.

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