

## CLINICAL IMAGE

# Rapidly destructive coxarthrosis accompanied by fluctuating C-reactive protein level

Hayato Shimizu | Hiroaki Nishioka 

Department of General Internal  
Medicine, Kobe City Medical Center  
General Hospital, Kobe, Japan

**Correspondence**

Hiroaki Nishioka, Department of  
General Internal Medicine, Kobe City  
Medical Center General Hospital, 2-1-1  
Minami-machi, Minatojima, Chuo-ku,  
Kobe City, Hyogo 650-0047, Japan.  
E-mail: nishiokahiroaki@hotmail.com

**Funding information**

This work did not receive any specific  
grant from agencies in the public,  
commercial, or not-for-profit sector.

**Abstract**

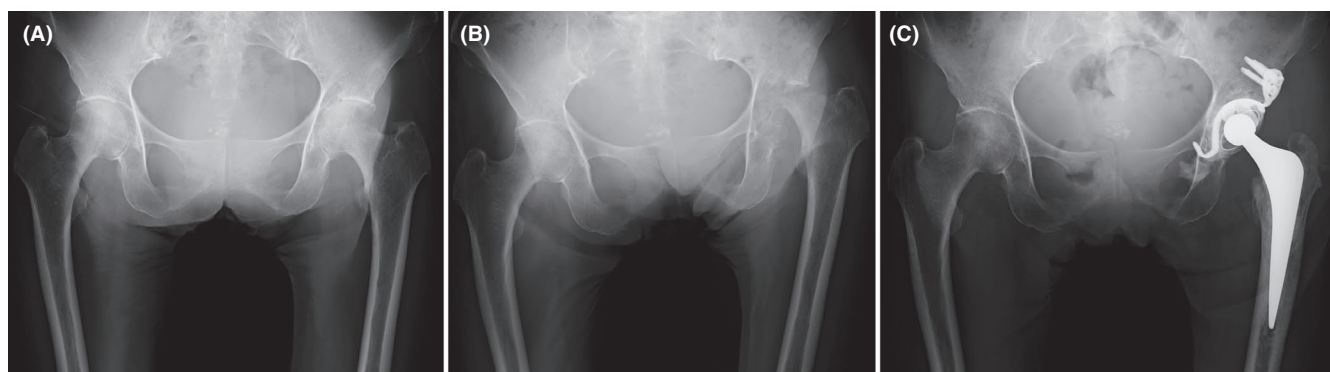
Rapidly destructive coxarthrosis is a rare entity of unknown etiology that is characterized by rapid hip joint destruction. Blood tests are thought to be non-specific. However, we herein show a patient with rapidly destructive coxarthrosis, which was accompanied by fluctuating C-reactive protein level.

**KEYWORDS**

C-reactive protein, radiography, rapidly destructive coxarthrosis

A 74-year-old woman presented with a 3-day history of left hip pain. Her left hip joint exhibited tenderness, and pain was induced by rotation. A CRP level was elevated (11.83 mg/dl). Radiography of the left hip slightly demonstrated joint space narrowing (Figure 1A). Synovial fluid cultures of the left hip yielded no bacteria. Her pain

deteriorated and elevated CRP level continued, but the radiographs did not show any obvious changes. Orthopedic surgeons hesitated an operation because of the high CRP level. Approximately 2 months after the presentation, radiography revealed marked destruction of the left femoral head (Figure 1B). We diagnosed her with rapidly



**FIGURE 1** (A) Anteroposterior radiograph of the left hip showing joint space narrowing. (B) Radiograph shows complete destruction of the femoral head. (C) Radiograph shows left total hip replacement

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2021 The Authors. *Clinical Case Reports* published by John Wiley & Sons Ltd.

destructive coxarthrosis (RDC). Left hip arthroplasty was performed (Figure 1C). Her pain disappeared, and CRP returned to normal level.

Rapidly destructive coxarthrosis is a rare entity of unknown etiology. Initial presentation is acute hip pain without radiographic evidence of joint destruction. Complete vanishing of the proximal femur abruptly occurs within a few months.<sup>1,2</sup> Early surgery is desirable.<sup>2</sup> Blood tests are thought to be non-specific<sup>1</sup>; however, our patient showed that RDC can be accompanied by fluctuating CRP. This suggests that RDC should be in the differential diagnosis for acute hip pain with elevated CRP level, and early surgery should be considered.

## ACKNOWLEDGEMENT

None.

## CONFLICT OF INTEREST

The authors declare that they have no competing interests.

## AUTHOR CONTRIBUTIONS

HS collected the data and wrote the first draft of the manuscript. HN coordinated the project and edited the manuscript. Both authors have read and approved the final manuscript.

## ETHICAL APPROVAL

Written informed consent was obtained from the patient. This case is anonymous.

## DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

## ORCID

Hiroaki Nishioka  <https://orcid.org/0000-0001-7619-0646>

## REFERENCES

1. Hu L, Zhang X, Kourkoumelis N, et al. The mysteries of rapidly destructive arthrosis of the hip joint: a systemic literature review. *Ann Palliat Med*. 2020;9:1220-1229.
2. Batra S, Batra M, McMurtrie A, Sinha AK. Rapidly destructive osteoarthritis of the hip joint: a case series. *J Orthop Surg Res*. 2008;3:3.

**How to cite this article:** Shimizu H, Nishioka H. Rapidly destructive coxarthrosis accompanied by fluctuating C-reactive protein level. *Clin Case Rep*. 2021;9:e05131. doi:[10.1002/ccr3.5131](https://doi.org/10.1002/ccr3.5131)