

# International Journal of Orthopaedics Sciences

E-ISSN: 2395-1958  
P-ISSN: 2706-6630  
IJOS 2020; 6(1): 1043-1044  
© 2020 IJOS  
[www.orthopaper.com](http://www.orthopaper.com)  
Received: 01-11-2019  
Accepted: 03-12-2019

**KONE Seydou Gnombena N'golo**  
University Hospital Center of  
Cocody BP V 13 Abidjan, Côte  
d'Ivoire

**KONE Samba**  
University Hospital Center of  
Cocody BP V 13 Abidjan, Côte  
d'Ivoire

**OUATTARA Issiaka**  
University Hospital Center of  
Cocody BP V 13 Abidjan, Côte  
d'Ivoire

**DOGBA Eric**  
University Hospital Center of  
Cocody BP V 13 Abidjan, Côte  
d'Ivoire

**TEBOU Mambou**  
University Hospital Center of  
Cocody BP V 13 Abidjan, Côte  
d'Ivoire

**AGOH Serge**  
University Hospital Center of  
Cocody BP V 13 Abidjan, Côte  
d'Ivoire

## Uni condylar fracture of the femur type trelat associated with dislocation of the patella. Diagnostic difficulty regarding a case in abidjan (ivory coast)

**KONE Seydou Gnombena N'golo, KONE Samba, OUATTARA Issiaka, DOGBA Eric, TEBOU Mambou and AGOH Serge**

DOI: <https://doi.org/10.22271/ortho.2020.v6.i1n.1957>

### Abstract

**Introduction:** We report the case of a lateral uni-condylar fracture of the femur type Trélat associated with a dislocation of the patella, which posed a diagnostic problem for us.

**Observation:** This is a 26-year-old patient who suffered an open trauma to the right knee following a motorcycle accident. We mentioned the diagnosis of a Trélat fracture associated with an avulsion of the patella. Indeed we had difficulty recognizing the dislocation of the knee on the radiological incidences of the front and profile of the knee. The diagnosis of patella dislocation incarcerated in the condyle was only made intraoperatively. We performed trimming of the wound, reduction of the patella and osteosynthesis of the condyle.

**Conclusion:** A careful radiographic examination is essential for any uni-condylar fracture of the femur because of the possible lesional association of the patella and the tibial plateaus.

**Keywords:** Fracture, femur, patella, joint dislocation

### Introduction

Uni-condylar fractures of the femur are rare lesions [1]. They can go unnoticed when they are associated with other lesions [1]. The association of a uni-condylar fracture of the femur with a dislocation of the patella is rare and little described in the literature [2].

We report the case of the rare lesional association of a lateral uni-condylar fracture of the femur type Trélat with a dislocation of the patella, which posed a diagnostic problem for us.

### Observation

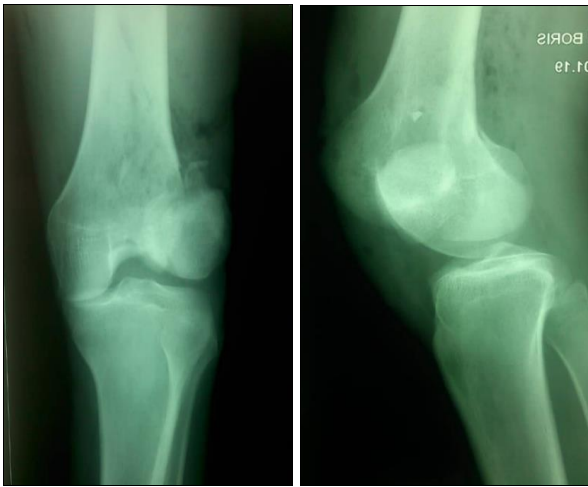
A 26-year-old patient with no specific medical history who was involved in a traffic accident. The mechanism of injury was a fall from a motorcycle with reception on the right knee. Clinical examination revealed a large knee with a skin opening type IIIa of Gustillo-Anderson (fig. 1, 2).



Fig 1-2: Open knee trauma type IIIa of Gustillo-Anderson

**Corresponding Author:**  
**KONE Seydou Gnombena N'golo**  
University Hospital Center of  
Cocody BP V 13 Abidjan, Côte  
d'Ivoire

The knee X-ray taken according to the front and profile incidences (fig. 3, 4) led us to discuss the diagnosis of a fracture of the external condyle such as Trélat or 33 B3 (AO) associated with avulsion of the patella (open trauma). We had not objectified the patella on the two radiographic incidences.



**Fig 3-4:** Radiographic views of the front and profile of the knee

The indication of a trimming and an osteosynthesis were posed. Intraoperative, the lesion assessment made it possible to highlight the dislocated and embedded patella in the lateral femoral condyle. After reduction of the patella, we noted a sagittal fracture of the lateral condyle associated with osteochondral lesions. We performed a trimming of the lesions and an osteosynthesis by screwing the fracture (fig. 5).



**Fig 5:** Control radiograph of the face and profile of the knee after osteosynthesis

The aftermath was simple. Functional rehabilitation was undertaken six weeks after surgery. After a 12-month follow-up, we saw the patient again with a satisfactory functional knee recovery.

### Comments

We were faced with a radiological diagnostic difficulty in our patient. Indeed the fact that the dislocated patella was incarcerated in the lateral condyle, it was difficult to highlight on the radiological incidences of face and profile of the knee. We therefore thought of an avulsion of the patella through the skin opening.

This observation highlights the interest of a good radiographic exploration in the face of any knee trauma and in particular for any uni-condylar fracture [3]. Indeed, uni-condylar fractures of the femur can be associated with damage to the

patella, tibial plateaus and ligaments [2]. In the absence of a CT scan, we recommend, in addition to front and profile radiographic incidences, the production of femoro-patellar incidences [3]. The best would be to perform a CT scan to analyze the type of fracture and associated bone lesions and an MRI to look for a meniscal ligament lesion [4]. We are in favor of an osteosynthesis by screwing these types of fracture [2].

### Conclusion

This observation highlights the interest of a good radiological exploration in front of any uni-condylar fracture of the femur. It is indeed possible to ignore an associated lesion of the patella when it is as in our case incarcerated in the condyle.

### References

1. Bel JC, Court C, Cogan A, Chantelot C, Piétu G, Vandebussche E. Uni-condylar fractures of the distal femur. *Rev Chir Orthop Trauma.* 2014; 100(8):628-32.
2. Chiron P. Fractures of the lower extremity of the adult femur. EMC Appareil locomoteur. Paris: Elsevier SAS, 2009, 14-080.
3. Ostermann PA, Neumann K, Ekkernkamp A, al. Long term results of unicondylar fractures of the femur. *Journal of orthopaedic trauma.* 1994; 8(2):142-6.
4. Jordan Martin C, Bittrich Leonie A, Fehske Kai, al. A rare case of Hoffa fracture combined with lateral patellar dislocation. *Trauma Case Reports.* 2017; 9:13-6.