

# Pellegrini-Stieda Disease: About two Cases at Yopougon-Abidjan

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**Abstract:** Pellegrini-Stieda disease is rare. Non-invasive treatment gives good results. We report two cases in adults after trauma neglected in their knee. Particularities of this disease are discussed with a review of the literature.

**Keywords:** Medial collateral ligament; Knee; Ossification; Pellegrini-Stieda.

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## 1. INTRODUCTION

Pellegrini-Stieda disease is rare [1]. It is an ossification of medial collateral ligament of the knee at the condylar region secondary to trauma [1-2]. It is often asymptomatic [3]. The diagnostic is radiologic. Two adults displayed this injury that could confirm the rarity of the disease or highlight a lack of diagnosis. The aim of our work is to contribute to epidemiologic study

## 2. CASE REPORTS

### Case 1:

SM a 30 year-old male, student, complained of stiffness in his right knee. There was a history of L1 fracture with paraplegia after road traffic accident that occurred 8 years ago. Traditional medicine was done. The knee was big with stiffness in extension and para paresis in the lower limbs. Knee x-ray examination showed multiple ossification of soft tissue of the knee which concerned also condylar region (Figure 1).



Figure 1: Ossification of the medial collateral ligament associated with myositis ossificans of the thigh after paraplegia

A diagnosis of Pellegrini-Stieda disease was made based on the imaging and clinical findings. A range-of-motion exercise has been associated with the prescribed ketoprofen and paracetamol

**Case 2:**

K J. a 35 year-old male, teacher, was admitted for chronic pain in his right knee following a neglected football injury four months before. Traditional medicine was done including massage. A physical examination elicited a right knee valgus post traumatic and muscle atrophy. Palpable pain was evident on medial knee. There were no menisci signs or abnormal movements. Active range of motion to the knee was limited to 130 degrees of flexion and pain was noted in the last degrees of knee extension. X-ray revealed ossification of soft tissue in the medial femoral condylar region thus indicating Pellegrini-Stieda disease (Figure 2). Ketoprofen and Paracetamol were prescribed along with rehabilitation of the knee which has amended the symptoms after 30 days.



**Figure 2: Ossification of the medial collateral ligament after football injury**

### 3. DISCUSSION

The discovery of soft tissue ossification in the condylar region associated with knee pain and a history of trauma leads us to the diagnosis. It was first described in 1905 by Pellegrini [4]. The pending problems are tumours, small fractures along with post traumatic osteomas at the tibial insertion of the ligament [3-5]. The ossification is present at the medial collateral ligament at the knee condylar level [1-2-4]. The mechanism may be a haematoma or inflammatory oedema developing as result of tearing and shredding of fibers at the femoral attachment. MacAnally gave new thoughts [6]. He thinks that calcification can be caused by stripping of the femoral periosteum proximal to the femoral attachment of the tibial collateral ligament. The subjects are mostly young and adult male (25 years to 40 years), but Turner has reported a case in a patient of 62 years old [3]. Sport trauma is described more than traffic accident [1-6-7]. It is a late complication of knee sprain but is observed without any direct trauma. Massage encourages injury by causing repetitive micro trauma. This is the case with our paraplegic patient. The ligament and muscle in his thigh were involved. Heterotopic ossification has been commonly associated with spinal cord injury or osseous injury [2-8]. The pain may be chronic from the beginning of the trauma but the reported cases show a variable-free interval of least 21 days to 20 years [2-4-7]. The pain may limit range of motion in the knee. The radiological diagnosis is guided by the AP X-ray of the knee but the MRI confirms the ligament damage [7-9]. The extent of the osseous fragment is delineated as an area of signal void on T 2\* weighted MRI, while the maturity of the fragment is shown by high signal on T 1 weight imaging [7]. It helped to identify lesions associated with the internal posterior ligament [6]. Our patients could not have an MRI examination which was suggested as a result of financial constraints. The common use of the MRI with fortuitous discovery of ossification led Niitsum to conclude that the disease is not rare [9]. The number of cases (n=4) that he records is insufficient. Conservative treatment gives good results as well as surgical treatment [1-2].

#### 4. CONCLUSION

Absence of initial treatment encouraged lesions. The development of medical imaging with the recent introduction of MRI may increase our cases

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