

## Sequelae of Osgood-Schlatter

Mahmut Taş<sup>1</sup>, Asım Kalkan<sup>1</sup>, Serkan Gürçan<sup>2</sup>, Ferhat Güler<sup>3</sup>

<sup>1</sup>Clinic of Emergency Medicine, Diyarbakır Training and Research Hospital, Diyarbakır, Turkey

<sup>2</sup>Clinic of Orthopedics and Traumatology, Diyarbakır Training and Research Hospital, Diyarbakır, Turkey

<sup>3</sup>Clinic of Orthopedics and Traumatology, Antalya Training and Research Hospital, Antalya, Turkey

### Abstract

Osgood-Schlatter disease is the traction apophysitis of tuberositas tibia and the most common cause of knee pain in adolescents. Despite the frequent discomfort, sequelae are rarely observed. In this paper, sequelae of Osgood-Schlatter disease, presenting with knee pain in the emergency room were submitted. Rarely encountered in the emergency department in adult patients presenting with knee pain with sequelae of Osgood-Schlatter disease, the need to be aware of the diagnosis, clinical and radiological features and differential diagnosis are discussed. (*JAEM 2014; 13: 95-6*)

**Key words:** Osgood-Schlatter disease, adult, knee pain

### Introduction

Osgood-Schlatter disease is the traction apophysitis of the tuberositas tibia and the most common cause of knee pain in adolescents, especially in athletic children between the ages of 8-15 years. However, some characteristic symptoms and findings of this disease should be well known for distinguishing it from other more common (trauma and meniscopathy) and important (infection and tumor) causes of knee pain. Despite its frequent occurrence, late sequelae are rarely observed. In this paper, based on the literature, it was discussed that sequelae of Osgood-Schlatter disease can be confused with fractures in patients admitted to the emergency department with complaints of knee pain.

### Case Presentation

A 36-year-old male patient presented to the emergency department with complaints of pain and swelling on his right knee, which developed after playing football. In the physical examination, it was found that there was localized swelling and tenderness with palpation on the region of the proximal tibia over the front of the right knee but no rash. He could perform his knee movements exactly actively and passively but with increasing pain, especially with knee flexion and any contact. Other system findings of the patient were normal. Bilateral knee X-ray graph found a piece of bone along the disconnected patellar tendon axis in the tuberositas tibia (Figure 1). Although the presence of fracture was considered based on the

graph, the previous complaint of swelling and existence of sclerosis around the piece of bone when examined carefully led us to suspect the diagnosis of sequelae of Osgood-Schlatter disease. The patient was recommended to use analgesic-anti-inflammatory drugs, to administer cold compression, and to restrict his knee movements. Additional medical workup was not considered for the patient, because his complaints disappeared in the follow-up examination after 10 days.

### Discussion

Osgood-Schlatter disease is a benign, self-limited disorder that grows rapidly and is seen mostly in active athletic adolescents. In spite of its frequent incidence, its sequelae are rarely observed. It is diagnosed through clinical and radiological means in childhood. Its characteristic symptom is pain on the front of the kneecap, 2-3 cm below patella. This pain is usually felt when contacted directly during activity, and it disappears with rest. Patients typically do not present with a history of trauma.

The etiology of the disease is controversial. It is thought that it occurs due to microtraumas in the tuberositas tibia. Generally, it is treated with the use of analgesics and restricted knee movements (1-3). Surgical treatment is administered only for recurrent cases and sequelae cases causing any cosmetic problems (4).

Patients usually present with a complaint of chronic pain on knee. However, although it occurs rarely, they may be admitted to the emergency department with sudden onset of pains. In addition

**Correspondence to:** Mahmut Taş, Clinic of Emergency Medicine, Diyarbakır Training and Research Hospital, Diyarbakır, Turkey  
Phone: +90 532 227 31 26 e.mail: drmahmuttas@gmail.com

**Received:** 26.11.2010 **Accepted:** 31.12.2010 **Available Online Date:** 14.10.2011

©Copyright 2014 by Emergency Physicians Association of Turkey - Available online at [www.akademikaciltip.com](http://www.akademikaciltip.com)  
DOI:10.5152/jaem.2011.067





**Figure 1.** View of piece of bone along the patellar tendon axis

to localized tenderness, irregularities on the tuberositas tibia, fragmentation, and pieces of bone toward the patellar tendon are seen on the direct graph (5-7).

## Conclusion

Osgood-Schlatter disease sequelae can be confused with tuberositas tibia fractures in adults. So, emergency physicians should take Osgood-Schlatter disease into consideration in the differential diagnosis for knee pains and its sequelae in adults.

**Informed Consent:** Informed consent was obtained from the patient who participated in this study.

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept - M.T.; Design - M.T., A.K.; Supervision - M.T.; Materials - M.T., A.K.; Data Collection and/or Processing - A.S., F.G., S.G.; Analysis and/or Interpretation - M.T., F.G., S.G.; Literature Review - M.T., A.K., F.G.; Writer - M.T.; Critical Review - M.T., F.G.

**Conflict of Interest:** The authors declared no conflict of interest.

**Financial Disclosure:** The authors declared that this study has received no financial support.

## References

1. Lucena GL, Gomes CD, Guerra RO. Prevalence and Associated Factors of Osgood-Schlatter Syndrome in a Population-Based Sample of Brazilian Adolescents. *Am J Sports Med* 2010; 10: 1177-9.
2. Gholve PA, Scher DM, Khakharia S, Widmann RF, Green DW. Osgood Schlatter syndrome. *Curr Opin Pediatr* 2007; 19: 44-50. [\[CrossRef\]](#)
3. Huang YC, Chao YH, Lien FC. Sequential avulsions of the tibial tubercle in an adolescent basketball player. *J Pediatr Orthop B* 2010; 19: 231-3. [\[CrossRef\]](#)
4. Pihlajamaki HK, Visuri TI. Long-term outcome after surgical treatment of unresolved osgood-schlatter disease in young men: surgical technique. *J Bone Joint Surg Am* 2010; 2: 258-64.
5. Bellicini C, Khoury JG. Correction of genu recurvatum secondary to Osgood-Schlatter disease: a case report. *Iowa Orthop J* 2006; 26: 130-3.
6. El-Husseini TF, Abdelgawad AA. Results of surgical treatment of unresolved Osgood-Schlatter disease in adults. *J Knee Surg* 2010; 23: 103-7. [\[CrossRef\]](#)
7. Cser I, Lenart G. Surgical management of complaints due to independent bone fragments in Osgood-Schlatter disease (apophysitis of the tuberosity of the tibia). *Acta Chir Hung* 1986; 27: 169-75.