

Sinding-Larsen-Johansson syndrome: A case report

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Abstract

Sinding Larsen-Johansson syndrome is an osteochondrosis injury of the patella commonly seen in adolescents (between 10 to 14 years old). We reported a case of a 12-year-old boy. He had been actively participating in many football tournaments for the last 18 years. He presented with tenderness at the inferior pole of the patella associated with focal swelling and restriction of knee joint range of movement. MRI confirmed the diagnosis of the Sinding Larsen-Johansson syndrome.

Keywords: Osteochondroses; MRI; Ossification; Patella

1. Introduction

Sinding-Larsen syndrome, is a type of traction apophysitis that affects the proximal end of the patellar tendon as it inserts into the inferior pole of the patella. It represents a chronic traction injury of the immature osteotendinous junction as a Osgood-Schlatter disease at the tibial tuberculi. It represents the pediatric version of "jumper's knee."

2. Case report

A 12 -year-old boy, presented a history of anterior right knee pain which was exacerbated during movement, long-distance walking, running. Clinical examination revealed normal patellar glide test, passive patellar tilt test, Axial patellar view: No evidence of patellar tilt or sub-luxation. MRI showed edema at the inferior pole of the patella and in the proximal portion of the patellar tendon and surrounding soft tissues **Figure 1**.

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Figure 1 Knee MRI Sagittal T1 weighted, sagittal and axial T2/STIR : edema at the inferior pole of the patella and in the proximal portion of the patellar tendon and surrounding soft tissues with high T2/STIR signal.

3. Discussion

3.1. Sinding-Larsen-Johansson disease

It is an osteochondrosis at the proximal attachment of patellar tendon, which is common in adolescents. This may be caused by The overuse and the frequent microtraumatism to the tendon at the insertion to lower pole of patella with traction tendinitis

Clinically it is characterized by pain localized to the lower pole of the patella.

Ray diagnostic examinations were used by all the authors. Through the standard radiographic exam, it is possible to highlight the typical phenomena of osteochondroses,

US can be considered the examination of choice in the evaluation of this syndrome, also due to the absence of side effects which causes the method to be well-accepted by parents.

CT has a limited role: while it is more sensible than traditional radiology (X-rays), when compared to MRI proves to be better in the diagnosis of subchondral fractures.

MRI is the gold standard in the diagnosis of the traumatic chondral lesions, of the dissecans osteochondrities and of the osteochondral fractures of the knee.

3.2. Treatment and prognosis

With rest and quadriceps flexibility exercises, the condition resolves with no secondary disability.

4. Conclusion

Sinding-Larsen-Johansson is a form of traction apophysitis at the inferior pole of the patella at the patellar tendon insertion

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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