Osgood-Schlatter disease

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DESCRIPTION

A 14-year-old man presented to our emergency department with 3 days of progressively worsening right knee pain that was exacerbated by movement. The patient played basketball and had a history of asthma, but he denied any recent trauma or prior knee pain. Systemic symptoms, including fever, weight changes and fatigue, were absent. On examination, he had tenderness at the tibial tuberosity and a small effusion, but no overlying erythema or limited range of motion. Knee films demonstrated patellar tendon oedema (figures 1 and 2, small arrow) and a sliver-like osseous density anterior to apophysis of the tibial tuberosity (figure 1, large arrow), confirming the diagnosis of Osgood-Schlatter disease.

Robert Osgood and Carl Schlatter independently described this painful overuse condition of the tibial tuberosity in 1903.[1] Osgood-Schlatter disease is common in active adolescents, possibly caused by multiple small avulsion fractures from contractions of the quadriceps muscles at their insertion into the proximal tibial apophysis.[2] The disease is associated with growth spurts, and may be bilateral in up to 30% of cases.[3]

Patients typically present with the gradual onset of pain, swelling and tenderness of the tibial tuberosity, exacerbated by activities that extend the knee against resistance.[1] Treatment for Osgood-Schlatter disease consists of reduced physical activity, analgesia and physical therapy.[1 3] Symptoms are typically self-limited, and patients can be instructed to gradually return to activity once the pain improves. Complete recovery is expected when the tibial growth plate closes, although some patients who have recurrent symptoms into adulthood may require surgical treatment.[1]

Figure 1 Lateral view of knee demonstrating patellar tendon oedema (small arrow) and a sliver-like osseous density anterior to apophysis of the tibial tuberosity (large arrow).

Figure 2 Anterioposterior view of knee.

Learning points

- Osgood-Schlatter disease is common in active adolescents, who commonly present with knee pain localised to the tibial tubercle that worsens with knee extension.
- Treatment consists of reduced physical activity, analgesia and physical therapy.
- Symptoms are typically self-limited, but some patients with recurrent symptoms into adulthood may require orthopaedic referral for surgical treatment.

Competing interests None.

Patient consent Obtained.

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