

Osgood-Schlatter Disease Oddly Diagnosed in Adulthood

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Introduction

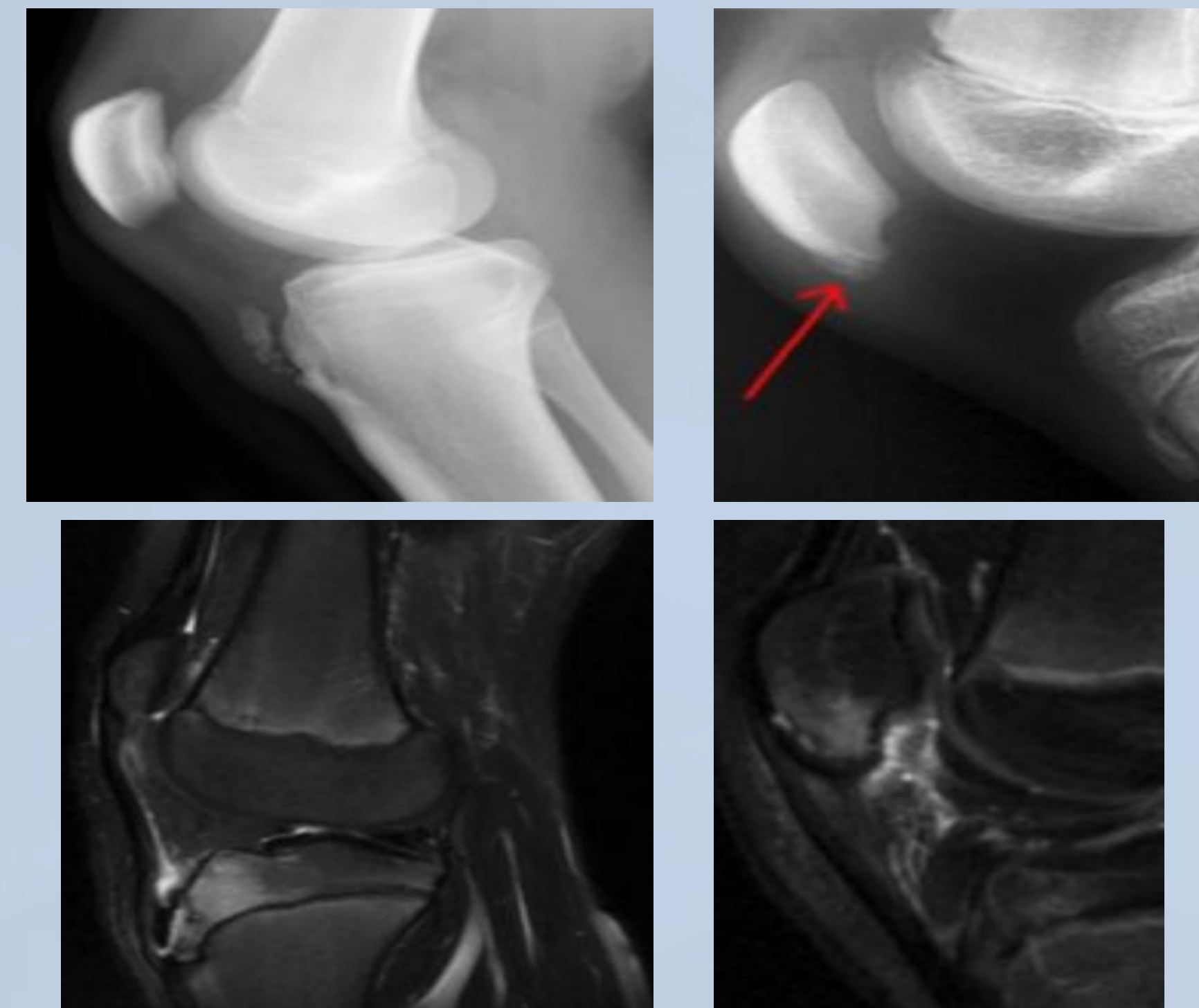
- Knee pain can arise from a variety of orthopedic conditions.
- Osgood-Schlatter disease (OSD) is a common diagnosis in the active adolescent population.
- Sports and activities that heavily utilize the quadriceps can lead to OSD.
- Repetitive quadriceps use can lead to stress on the tibial tubercle and lead to acute onset of anterior knee pain¹.
- It is luckily a self-resolving knee pain for adolescence.
- OSD is seen atypically in adult populations.

Case History

A 50-year-old male presented to the clinic to follow up for acute on chronic bilateral anterior knee pain. Previous knee x-rays showed evidence of Osgood-Schlatter disease (OSD). OSD initially appeared to be an unlikely diagnosis given his age and clinical presentation. Sports medicine believed his symptoms may be related to lumbar radiculopathy.

Diagnostic Study

- Electromyography revealed equivocal chronic multilevel lumbar motor radiculopathy.
- Lumbar spine MRI did not show any pathology that may be irritating the nerve root to the knees.
- **Bilateral knee XR** had confounding results for OSD without a prior history.
- **Bilateral knee MRI** revealed mild thickening and intrasubstance signal in the proximal tendon compatible with jumper's knee and sequelae for OSD.



Physical Exam Findings



- Prominent bilateral tibial tuberosity
- Bilateral knee pain at the patellofemoral joint space
- Knee ROM: flexion wnl, extension wnl, positive for mild crepitus

Discussion

- Knee pain associated with OSD commonly resolves itself upon fusion of the growth plate¹.
- The fusion of patient's epiphyseal plates should have resolved OSD related knee pain given his age¹.
- Since the initial XR results were confounding, the utilization of MRI provided further sensitivity to diagnose patients with OSD as seen in recent literature².
- The repetitive motions of the knee joint can cause the thickening of the patellar tendon and add stress to the tibial tuberosity, which commonly leads to OSD³.

Conclusion

- Although widely seen in a younger demographic, OSD should not be quickly dismissed in adults.
- Reports are emerging that untreated childhood OSD can lead to chronic knee pain in adults⁴.
- OSD can also present with a wide range of tibial tuberosity shapes, number of loose ossicles, and location of the patellar tendon affected⁵.
- It is important to start considering OSD for chronic knee pain in adults as a differential until an ultrasound or MRI is ordered for diagnosis.

References

1. Tsakotos, G., Flevas, D. A., Sasalos, G. G., Benakis, L., & Tokis, A. V. (2020). Osgood-Schlatter lesion removed arthroscopically in an adult patient. *Cureus*. doi:10.7759/cureus.7362
2. Vaishya, R., Azizi, A. T., Agarwal, A. K., & Vijay, V. (2016). Apophysitis of the tibial tuberosity (Osgood-Schlatter Disease): A Review. *Cureus*. doi:10.7759/cureus.780
3. Circi, E., Atalay, Y., & Beyzadeoglu, T. (2017). Treatment of osgood-schlatter disease: Review of the literature. *MUSCULOSKELETAL SURGERY*, 101(3), 195–200. doi:10.1007/s12306-017-0479-7
4. Sahar, N. H., Ramli, A. S., Badlishah-Sham, S. F., & Mohd Miswan, M. F. (2023). Osgood-Schlatter Disease in adult: Would early diagnosis and treatment improve the prognosis? *Journal of Clinical and Health Sciences*, 8(1), 76–81. doi:10.24191/jchs.v8i1.21453
5. Woolfrey, B. F., & Chandler, E. F. (1960). Manifestations of osgood-schlatter's disease in late teen age and early adulthood. *The Journal of Bone & Joint Surgery*, 42(2), 327–369. doi:10.2106/00004623-196042020-00011