

A Usually Incidental Finding Causes an Incident: An Unexpected Cause of Knee Pain in an Active 35 Year Old Male

Lisa Kieneker, M.D., and George G.A. Pujalte, M.D.

Division of Family Medicine

Mayo Clinic, Jacksonville, FL

Abstract

Knee pain is a common presenting complaint in Family Medicine. In this case, we found an unexpected cause of knee pain in an active 35-year-old male. He presented with posterior lateral right knee pain that initially began after a sports injury 2 years prior with recent exacerbation that limited his activity. Pain was associated with a common peroneal nerve palsy and clicking. Although further imaging was discussed, simple radiographs, along with a targeted physical exam, were enough to diagnose this patient accurately with fabella syndrome. At the time of this case report, the patient had recovered well with conservative management and physical therapy.

Case presentation

An active, 35-year-old male of Asian descent presented to clinic with right knee pain that initially began 2 years before presentation, while playing soccer, when his flexed knee was hit from the lateral side. His pain worsened a few weeks prior to presentation with no new injury. The pain was initially treated conservatively; however, it recently began to limit activity. The pain was described as sharp, located at the posterior knee, exacerbated by quick movements, and alleviated by cycling. He reported clicking of the knee and associated numbness and tingling of the right lateral calf.

On exam, he had pain with full flexion of the right knee. He had a positive McMurray's test on the right knee. The rest of his exam was within normal limits, including gait, anterior and posterior drawer tests, and valgus and varus stress testing.

Figure 1



Figure 1: Lateral radiograph of patient's right knee showing the fabella posterior to the right femur (arrow)

Workup

Further workup was discussed with patient and he elected to first obtain x-rays of his knees. The lateral radiograph of the right knee with significant for a fabella (Figure 1). Given the clinical picture, his physical exam, and his radiographs, it was felt that his presentation was consistent with fabella syndrome.

Treatment

The patient was referred to physical therapy, where he did exercises to strengthen the quadriceps, hips, and pelvic girdle, to improve the stability of the knee. He was also given stretches for the muscles and tissues surrounding the fabella. As of this writing, after more than a month of physical therapy, he has been able to return to his previously active lifestyle.

Discussion

Fabella syndrome occurs when a sesamoid bone located posterior to the lateral femoral condyle in the gastrocnemius tendon, known as a fabella [1], leads to symptoms such as posterior lateral knee pain (seen in this patient) and/or common peroneal nerve palsy [3,4], either due to trauma (as in this case), or repetitive motions [2]. It is a more common syndrome in Asian populations [2]. Treatment can include conservative therapy with physical therapy, or surgical excision if symptoms do not improve [5-7].

Here we presented a case of an active young male with a history reporting a an inciting event prior to his onset of knee pain our initial top differential was cyst formation secondary to a meniscal tear. In this case we were expecting that magnetic resonance imaging (MRI) would be needed to evaluate for meniscal tears and cyst formations, except conservative treatment did lead to resolution of symptoms. Shared decision-making with this patient led to a conservative workup revealing an unexpected etiology. Of note the radiologist did not initially note the fabella on imaging . A course of conservative management in addition to conservative workup resulted in improvement of the patient's pain. In patients with the correct clinical picture, fabella syndrome may be considered as part of the differential, especially when common peroneal nerve-related symptoms are noted,.

Conclusions

Symptoms stemming from the presence of a fabella should be considered as part of the differential for posterolateral knee pain and tenderness, associated in particular with leg numbness and tingling along the posterior tibial nerve distribution. The conservative diagnostic and therapeutic approach can used in this case, may lead to satisfactory results. Shared decision making with the patient in this case helped prevent a more costly diagnostic workup and treatment course. While writing this manuscript we reached out the patient and he continued to do well after his initial physical therapy and had returned to his active lifestyle with no restrictions.

References

- 1. Berthaume, M.A., Di Federico, E. and Bull, A.M., 2019. Fabella prevalence rate increases over 150 years, and rates of other sesamoid bones remain constant: a systematic review. *Journal of anatomy*.
- 2. Dalip, D., Iwanaga, J., Oskouian, R.J. and Tubbs, R.S., 2018. A Comprehensive Review of the Fabella Bone. *Cureus*, *10*(6).
- 3. Takebe, K. and Hirohata, K., 1981. Peroneal nerve palsy due to fabella. *Archives of orthopaedic and traumatic surgery*, 99(2), pp.91-95.
- 4. Patel, A., Singh, R., Johnson, B. and Smith, A., 2013. Compression neuropathy of the common peroneal nerve by the fabella. *Case Reports*, *2013*, p.bcr2013202154.
- 5. Zipple, J.T., Hammer, R.L. and Loubert, P.V., 2003. Treatment of fabella syndrome with manual therapy: a case report. *Journal of Orthop*
- 6. Driessen, A., Balke, M., Offerhaus, C., White, W.J., Shafizadeh, S., Becher, C., Bouillon, B. and Höher, J., 2014. The fabella syndrome-a rare cause of posterolateral knee pain: a review of the literature and two case reports. *BMC musculoskeletal disorders*, *15*(1), p.100.
- 7. Hire, J.M., Oliver, D.L., Hubbard, R.C., Fontaine, M.L. and Bojescul, J.A., 2014. Snapping knee caused by symptomatic fabella in a native knee. *American Journal of Orthopedics*, *43*(8), pp.377-379.