

Coexistence of symptomatic cyamella and multiple fabellae: A case report

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The cyamella, an ossified cartilaginous body within the proximal tendon or at the musculotendinous junction of the popliteal muscle, is a rarely observed and generally asymptomatic sesamoid bone of the knee.¹⁻⁴ The prevalence of ossified cyamella is reported to be between 0.57 and 1.8%.³ A symptomatic cyamella is very rare and described in the literature only in few case reports.^{2,4,5} The fabella is also a sesamoid bone typically found in the lateral head of the gastrocnemius. It may be bony, fibrocartilaginous, or both in nature and may occasionally be found in the medial head of the gastrocnemius. Although the incidence of fabella is reported as 10 to 30% in the general population,⁶ information on the incidence of multiple fabellae is not present in the literature. To our knowledge, the coexistence of symptomatic cyamella with multiple fabellae on radiological imaging has not been published in the literature.

A 65-year-old male, formerly diagnosed with osteoarthritis, presented with a history of posterior knee pain lasting for three months. The patient had no previous history of significant trauma, except for a simple rotational injury that occurred while walking on an uneven surface. Physical examination revealed mild swelling, pain that increases with extension, snapping elicited

upon extending the knee, localized tenderness, and warmth at the posterolateral aspect of the left knee. Plain radiographs demonstrated multiple osseous structures of various sizes. Magnetic resonance imaging revealed degenerative changes together with rice bodies in suprapatellar bursae and tendon sheaths of the medial gastrocnemius muscle and multiple osseous and fibrocartilaginous lesions located in the lateral gastrocnemius muscle and popliteus muscle, which were considered as multiple fabellae and cyamella, respectively (Figure 1).

Conservative treatments including anti-inflammatory medications, knee brace, avoiding excessive weight bearing, and physical therapy were applied. At the follow-up one month later, it was observed that the patient's complaints improved.

To the best of our knowledge, the coexistence of symptomatic cyamella with multiple fabellae has not been published in the literature so far. In a recent study, the prevalence of cyamella was investigated in a series of computed tomography scans previously collected as part of a larger project examining the human anatomy (212 knees of 106 individuals). Three individuals were reported to have cyamella (1.4%), among them, only one

Received: February 22, 2022 **Accepted:** April 19, 2022 **Published online:** June 06, 2022

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Citation:

Başaran S, Benlidayı İC. Coexistence of symptomatic cyamella and multiple fabellae: A case report. Arch Rheumatol 2023;38(1):156-158.

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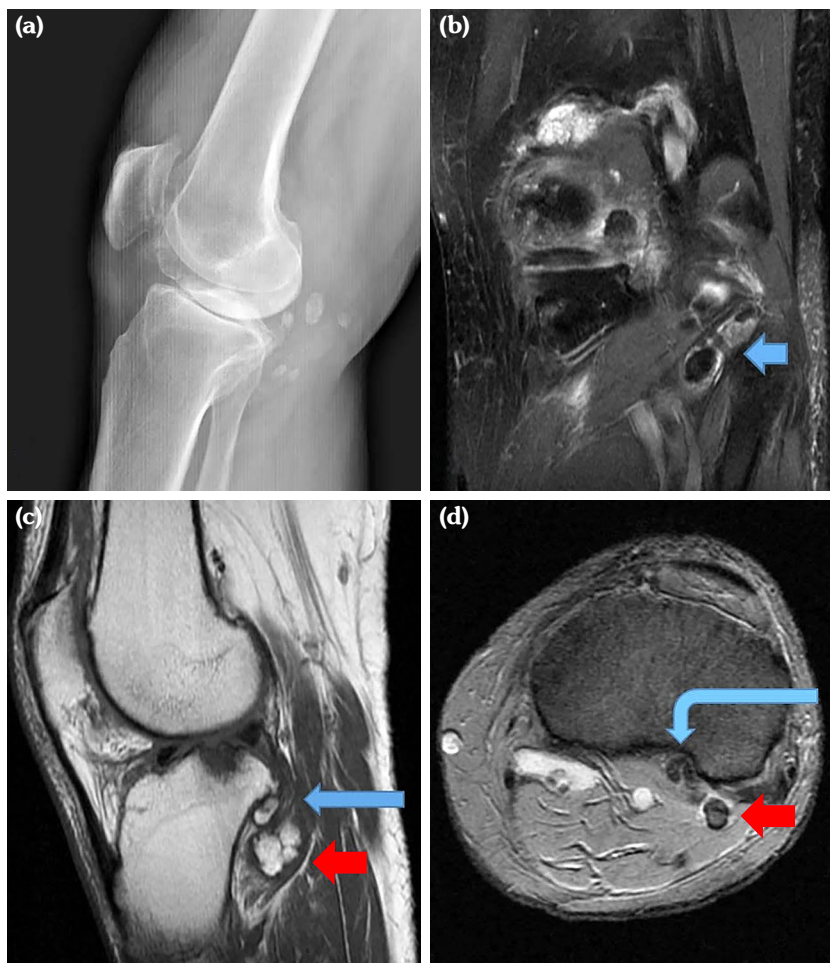


Figure 1. (a) Lateral knee radiograph shows multiple osseous structures of various sizes on the posterior aspect of the left knee. (b) Coronal fast spin-echo proton density-weighted sequence shows multiple fabellae within the lateral head of the gastrocnemius muscle (short arrow). (c) Sagittal fast spin-echo T1-weighted sequence shows sesamoid bones located posterior to the proximal end of the tibia consistent with cyamella (long arrow) and fabellae (red arrow). (d) Axial gradient recalled echo T2*-weighted sequence shows the cyamella located posteromedial to the tibiofibular joint (curved arrow) and fabella (red arrow).

was documented to have fabella together with cyamella.³ Cyamella usually presents with pain, swelling, and discomfort. Snapping knee is also described as a symptom of cyamella in a recent case report.⁵ Popliteal tendonitis secondary to cyamella or dislocation of the cyamella at the time of an acute injury may initiate the symptoms.⁷ In the present case, a history of rotational injury might have led to acute pain. The fabella can lead to various pathologies, such as fabella pain syndrome and common fibular nerve palsy.^{6,8}

The differential diagnoses of cyamella include fabella, osteocartilaginous loose bodies, osteophytes, meniscal cyst calcifications, posttraumatic bone fragments, heterotopic ossification, soft tissue tumors, and, less likely, osteochondroma.^{1,4}

No specific treatment options concerning symptomatic cyamella are present in the literature; however, few articles addressing the issue pointed to conservative treatment.²

In patients with posterolateral knee pain, symptomatic cyamella and multiple fabellae should be considered in the differential diagnosis.

Patient Consent for Publication: A written informed consent was obtained from patient.

Data Sharing Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Author Contributions: Idea/concept, design, interpretation, references: S.B., İ.C.B.; Supervision, data processing, literature review, writing the article: S.B.; Critical review: İ.C.B.

Conflict of Interest: The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding: The authors received no financial support for the research and/or authorship of this article.

REFERENCES

1. Khanna V, Maldjian C. The cyamella, a lost sesamoid: Normal variant or posterolateral corner anomaly? *Radiol Case Rep* 2015;9:e00031.
2. Benthien JP, Brunner A. A symptomatic sesamoid bone in the popliteus muscle (cyamella). *Musculoskelet Surg* 2010;94:141-4.
3. Berthaume MA, Bull AMJ. Cyamella (a popliteal sesamoid bone) prevalence: A systematic review, meta-analysis, and proposed classification system. *Clin Anat* 2021;34:810-20.
4. Dykes MI, Vijay RK. Sesamoiditis of the cyamella: Imaging features of this rare presentation. *Jpn J Radiol* 2014;32:105-8.
5. Su S, Lu Y, Chen Y, Li Z. A symptomatic cyamella in the popliteus tendon causing snapping knee: A case report and literature review. *BMC Musculoskelet Disord* 2019;20:495.
6. Dalip D, Iwanaga J, Oskouian RJ, Tubbs RS. A comprehensive review of the fabella bone. *Cureus* 2018;10:e2736.
7. Rehmatullah N, McNair R, Sanchez-Ballester J. A cyamella causing popliteal tendonitis. *Ann R Coll Surg Engl* 2014;96:91E-93E.
8. Driessen A, Balke M, Offerhaus C, White WJ, Shafizadeh S, Becher C, et al. The fabella syndrome - a rare cause of posterolateral knee pain: A review of the literature and two case reports. *BMC Musculoskelet Disord* 2014;15:100.