

## Ruptured Baker's cyst

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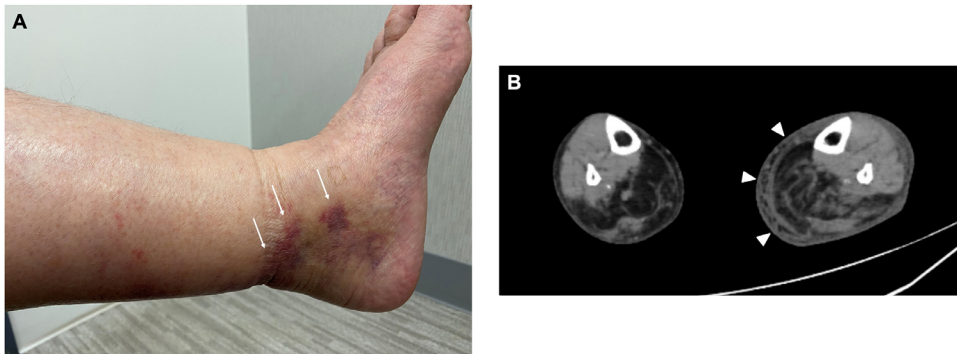


FIG. 1.

### CASE PRESENTATION

An 87-year-old woman presented to the outpatient clinic with acute onset of swelling and pain in her left lower leg. She had no recent episodes of trauma. Her vital signs were normal. Physical examination showed a swollen left lower leg without signs of inflammation and with ecchymosis around the medial malleolus (Figure 1A, arrows). Blood tests revealed normal C-reactive protein but elevated d-dimer (4.1  $\mu\text{g/mL}$ ). Ultrasonography and contrast-enhanced computed tomography showed subcutaneous edema with fluid collection in the intermuscular spaces without any findings of deep vein thrombosis (DVT) (Figure 1B, arrowheads). Given the history, physical findings, and imaging results, we made a diagnosis of ruptured Baker's cyst. The symptoms had disappeared after 14 days of rest and leg elevation.

A Baker's cyst is a gastrocnemius-semimembranosus bursa that expands posteriorly in the popliteal space. It can rupture spontaneously or as a result of physical strains. A rupture of Baker's cyst may cause inflammation, swelling, and pain in the lower leg, mimicking DVT.<sup>1</sup> Discoloration or ecchymosis of the popliteal area, calf, ankle, and foot due to the downward flow of bloody synovial fluid may be seen on physical examination,<sup>1</sup> and are reported to be the only clinical signs that can be used to differentiate ruptured Baker's cyst from DVT.<sup>2</sup> Following rupture, a cyst in the popliteal space may not be identified by physical examination or imaging studies.<sup>2</sup> Most

cases are self-limiting and respond to conservative treatment, including rest, leg elevation, and local heat application.<sup>2</sup> The differential diagnosis includes muscle tears, compartment syndrome, cellulitis, and fasciitis. Skin discoloration or ecchymosis occurring with acute onset of unilateral lower leg edema and pain in a non-traumatic patient are indicators of ruptured Baker's cyst.

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None.

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### ACKNOWLEDGMENTS

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### PATIENT CONSENT

The patient provided informed consent for the publication of this article and its accompanying images.

### REFERENCES

1. Herman AM, Marzo JM. Popliteal cysts: a current review. *Orthopedics*. 2014;37:e678–e684.
2. Mizumoto J. The crescent sign of ruptured Baker's cyst. *J Gen Fam Med*. 2019;20:215–216.