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# A case of eumycetoma in British Columbia

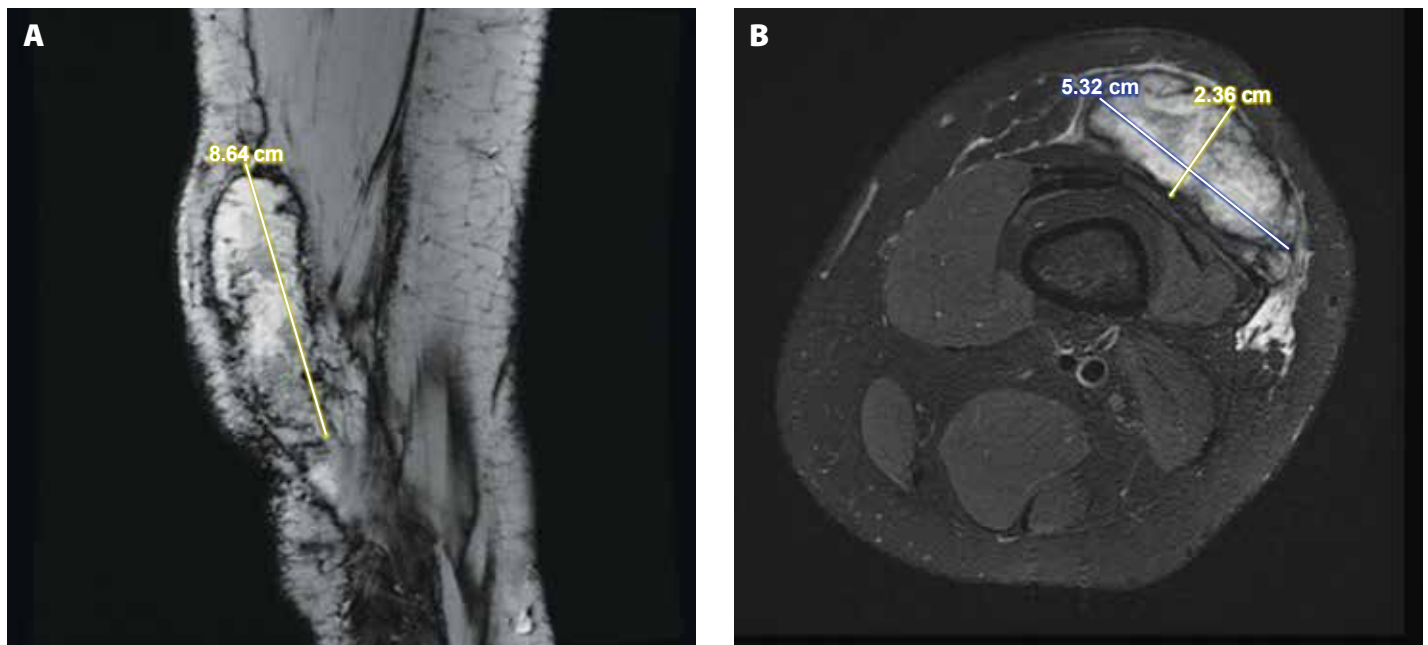
Although eumycetoma is a rare infectious entity in Canada, its diagnosis should be considered in patients who have arrived from an endemic country.

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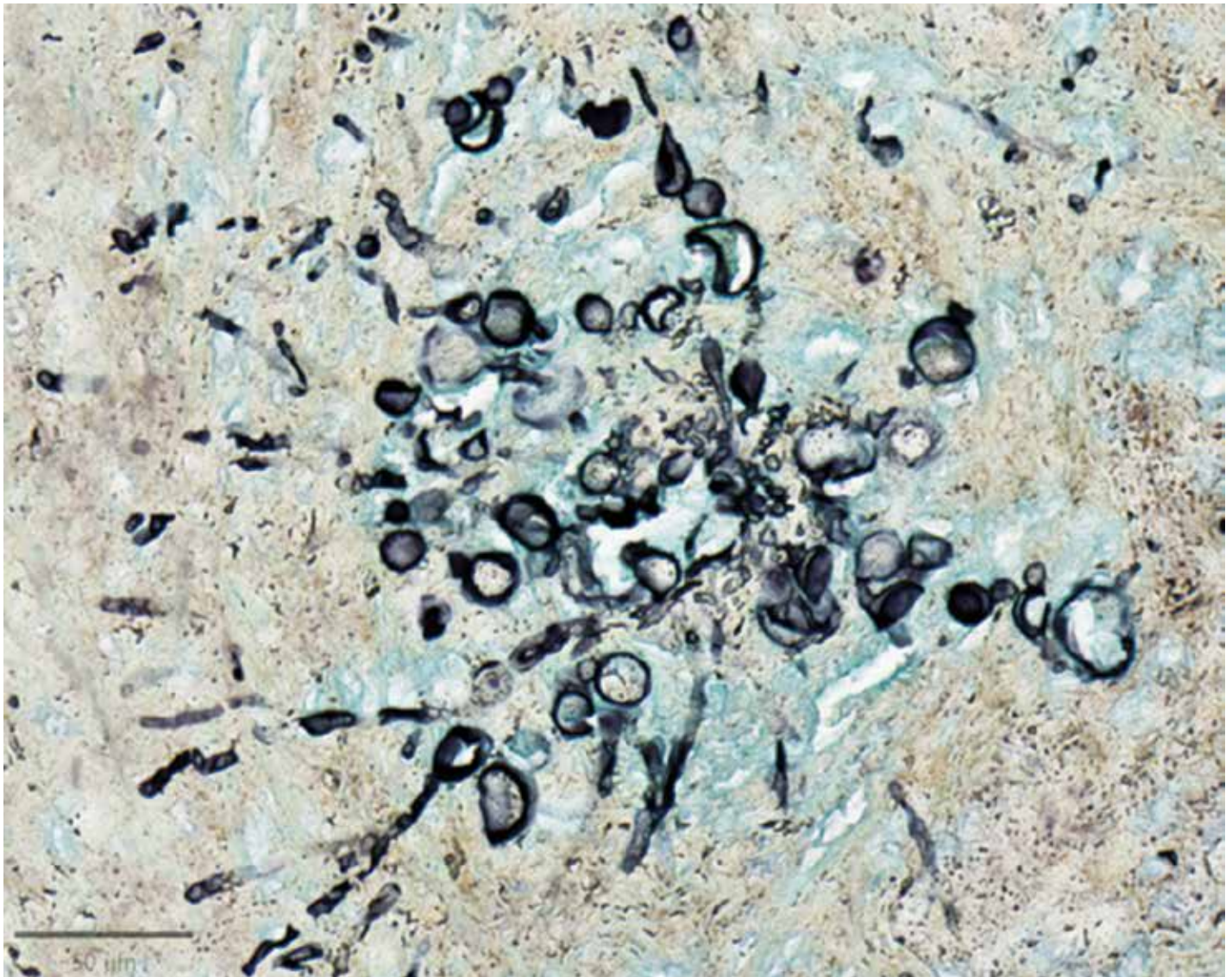
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**E**umycetoma is a rare, chronic disease in which fungal entities implant into various body tissues, causing granulation and inflammation.<sup>1</sup> It is endemic in countries along the tropics and affects approximately 1.81 people per 100 000.<sup>2</sup> The fungal agent may initially cause local inflammation and swelling; over a chronic course, it invades subcutaneous tissues. If untreated, this may result in irreversible derangements to soft tissue structure and debilitating injury. Due to the paucity of guidelines, diagnosis and management of this rare entity remain uncertain.

We present the case of a 23-year-old female immigrant from Somalia who had an enlarging knee mass since childhood. Soft-tissue sarcoma was the initial preliminary diagnosis. MRI with sagittal T2 gradient-recalled echo and axial T1 fat-saturated acquisitions demonstrated a mildly lobulated 2.36 × 5.32 × 8.64 cm heterogeneous but predominantly T1/T2 hyperintense mass, along with mild peripheral susceptibility artifact and mild surrounding inflammatory change [Figure 1]. It contained multiple septations and foci of hypointense debris, suggestive of edema or



**FIGURE 1. A:** Sagittal T2 MRI view of the eumycetoma showing approximately 8.64 cm length in the anterolateral thigh. **B:** Axial T1 MRI displaying an approximately 5.32 × 2.36 cm cross-section of the lesion. The heterogeneous lobulated nature of the mass was demonstrated on these representative images.



**FIGURE 2.** Core biopsy with subsequent Grocott methenamine silver stain revealing numerous collections of septate fungal hyphae.

necrosis. The patient underwent surgical removal of the mass and had symptomatic improvement. Subsequent core biopsy with Grocott staining revealed a dense collection of fungal elements with surrounding inflammation and edema [Figure 2]. There were various collections of septate fungal hyphae surrounded by the Splendore–Hoeppli phenomenon, consistent with a eumycetoma. No specific organisms could be recognized. After a few weeks of culture, no fungal or bacterial elements were isolated.

This unique case highlights a few points. Eumycetoma, a rare infectious entity in Canada, should be on the differential for patients who have arrived from an endemic

country. Infection may include soft tissue entities, such as lipoma, sarcoma, or neuroroma. Treatment is patient-dependent and, depending on the clinical scenario, involves observation, treatment with antifungal agents, or surgical resection.<sup>3</sup> With the number of immigrants increasing due to global mobilization, practitioners should include atypical infectious causes in the differential diagnosis, which will aid in accurate diagnosis and timely management. ■

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#### Competing interests

None declared.

#### References

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