

# VASCULAR IMAGES

## Ergotism

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A 50-year-old woman with a 60-pack-year history of smoking was admitted with bilateral critical leg ischemia. Her medical history was unremarkable except for migraine headaches treated with self-administered ergot-containing medication. She complained of rest pain and paresis of the toes on the right and tingling and numbness of the foot on the left. Femoral pulses were diminished, and popliteal and tibial were absent bilaterally. On the right foot, Doppler signals were absent; whereas on the left, she had an ankle-brachial index (ABI) of 0.30. An angiogram documented diffuse vasospasm. The superficial femoral and popliteal arteries had a “threadlike” appearance (Cover), with distal occlusion on the right (A).

The patient was treated with an infusion of iloprost and low-molecular-weight heparin. After 7 days, the spasm improved on the left; but on the right, it progressed with ischemic changes of the skin (B). A right laparoscopic lumbar sympathectomy was performed. At the 1-month follow-up, the ABI was 1.0 bilaterally. A duplex ultrasound scan showed a 4.5-mm right popliteal artery with biphasic flow (C). Her ulcers healed during the next 3 months.

Ergotism is a rare cause of arterial insufficiency. It occurs in 0.001% to 0.002% of patients receiving ergot derivatives, primarily for treatment of migraine. Ergot preparations may cause widespread systemic arterial vasoconstriction and can result in organ ischemia. Ergotism most commonly involves the extremities, particularly the femoral arteries. Leg ischemia with pallor, coolness, and numbness progressing to rest pain are common features. Ischemic ulcers and gangrene may develop. Chronic lower extremity ischemia with claudication and iliac arteries dissection are also reported.<sup>1,2</sup>

The cornerstone of therapy in ergot toxicity is to discontinue all ergot-containing medications as well as caffeine and smoking. If limb ischemia persists, other conservative treatment options include nifedipine, sodium nitroprusside, prazosin hydrochloride, prostaglandins, and sympathectomy. None has emerged as a treatment of choice. Long-term results of chemical sympathectomy remain inconsistent, and ureteral damage, retroperitoneal abscess, and fibrosis are reported. Angioplasty in the presence of vasospasm carries the risk of intimal tears that may lead to thrombosis and should be avoided.

### REFERENCES

1. Garcia GD, Goff JM Jr, Hadro NC, O'Donnell SD, Greatorex PS. Chronic ergot toxicity: a rare cause of lower extremity ischemia. *J Vasc Surg* 2000;31:1245-7.
2. Molkara AM, Abou-Zamzam AM Jr, Teruya TH, Bianchi C, Killen JD. Chronic ergot toxicity presenting with bilateral external iliac artery dissection and lower extremity rest pain. *Ann Vasc Surg* 2006;20:803-8.

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