Extra-Aortic Mycotic Aneurysm Due to Group A *Streptococcus* after Pharyngitis

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Mycotic aneurysms, especially outside the aorta, are uncommon, with group A *Streptococcus* a particularly rare cause. We report a case of extra-aortic mycotic aneurysm following a sore throat without demonstrable bacteremia where identification of the pathological organism was made by molecular diagnostic techniques after a standard laboratory culture was negative.

A 58-year-old man was transferred to a tertiary vascular center from a district hospital. Ten days before admission, he had consulted his general practitioner because of a sore throat and was found to have an erythematous throat with tender cervical lymphadenopathy on examination. He was given a 7-day course of phe-noxyethylpenicillin at 500 mg four times a day, but a throat swab was not taken at the time. Three days before admission, he had developed pain in his left groin, which increased in intensity and progressed to involve the thigh and left side of his abdomen. On the day of admission, anemia in the area innervated by the left anterior femoral cutaneous nerve and some mild left leg weakness had developed, impeding his mobility.

His medical history included pancreatitis with a laparotomy for a suspected pseudocyst and laparoscopic cholecystectomy. Regular medication included omeprazole for long-standing gastritis. He was a former smoker for 5 years; gave up drinking alcohol several years ago, having consumed above-average amounts; and worked as a horticulturist.

On examination on arrival, his temperature was 36.7°C, his blood pressure was 120/70 mmHg, and his pulse rate was 95 beats/min. Generally, he appeared well with no abnormalities of the heart sounds and a clear respiratory examination on auscultation. Abdominal palpation revealed mild tenderness in the left iliac fossa with no evidence of peritonitis. Examination of the left groin identified a pulsatile, expansile mass, with a weak popliteal pulse and absent left posterior tibial and dorsalis pedis pulses, but the foot was warm and well perfused. Motor and sensory examination of the left lower limb revealed Medical Research Council grade 4 to 5 power throughout and mild paresthesia in the area innervated by the anterior femoral cutaneous nerve.

Laboratory testing showed a leukocytosis of 15.6 × 10⁹ cells/liter and a C-reactive protein level of 331 mg/liter (normal range, <5 mg/liter). A computed tomography (CT) scan showed a very large left retroperitoneal hematoma (Fig. 1) displacing the left kidney anteriorly and originating from and contiguous with a large pseudoaneurysm (47 by 35 by 44 mm) at the common femoral arterial bifurcation (Fig. 2). The femoral artery was not aneu-rysmal on a CT scan performed 9 months previously for suspected cholecystitis.

He was commenced on intravenous amoxicillin-clavulanic acid at 1.2 g three times a day and underwent an emergency bypass from the left external iliac artery to the superficial femoral artery with an expanded polytetrafluoroethylene graft with ligation of the common and superficial femoral and profunda femoris arter-
Molecular diagnostic tests utilizing PCR detection and identification have sterilized the samples. However, by using 24). The disappointing diagnostic yield may be because prior antibiotic treatment has sterilized the samples. However, by using PCR detection and identification, we were able to identify S. pyogenes from the aneurysm despite the administration of antibiotics to which the organism was fully susceptible.

**Conclusion.** Mycotic aneurysm is a rare but potentially serious complication of group A streptococcal infection. Vascular surgeons presented with a case of suspected mycotic aneurysm from the community should inquire about preceding pharyngitis and work closely with infectious-disease physicians to make the most of modern molecular diagnostic technology. Serum antistreptococcal antibodies may also provide useful and inexpensive indirect supportive evidence in such cases. Identification of S. pyogenes also ensures tailored antimicrobial therapy to try to prevent graft infection.

**REFERENCES**

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