Case History

A 54-year old man was flown by helicopter from Rappahannock to the Emergency Department for rapidly progressive cellulitis of the right thigh. On presentation, the patient was delirious and his wife provided the history. She stated that he began complaining of severe right thigh pain at 1 A.M. the morning of admission, developed a fever of 103.5° F by 3:30 A.M., and then began to vomit. She took him to the Rappahannock Emergency Department at 10 A.M. where he was found to have a temperature of 105.3°F as well as intense pain and erythema of his right thigh. He received a dose of Imipenem and was transferred to our institution.

At the time of admission, the patient was disoriented but complaining of non-radiating pain in his right thigh. He also complained of chills and continued nausea. He denied any other complaints including arthralgia, myalgia, diarrhea, or skin changes. He had no sick contacts.

The patient's wife stated that the patient had been in his usual state of health until the morning of admission. He reported no recent injury to the right leg or foot although his wife recalled that he had fallen at work five days prior to admission and had since been complaining of a "charley horse" in his right thigh, which was moderately relieved by acetaminophen.

Past Medical History:

- Hypertension
- Thoracic aortic aneurysm with repair and placement of prosthetic aortic valve in 1995
- Endocarditis involving prosthetic aortic valve in May 2001 and recurrence in September 2001, ultimately requiring replacement of prosthetic aortic valve and native mitral valve.
- Cerebrovascular hemorrhage, March 2001

Medications:

- Coumadin 10 mg 4 days/week, 12.5 mg 3 days/week
- Lisinopril 5 mg daily, last taken 2 days prior to admission
- Aspirin 81 mg daily

Family History:

- Father died of cancer, unknown type at age 70
- Mother estranged from family, unknown health history
- Siblings healthy
- Son with asthma

Social History:

- Works as a crabber in Rappahannock
- 50 pack year history of smoking tobacco
- Reports ingestion of 1 to 2 beers per night
- No drug use, injection or otherwise
- No recent travel

Physical Exam

General:	Well nourished man in mild distress related to thigh pain.
Vital signs:	Temp 104.2°F, heart rate 101/minute, respiratory rate 20/minute, blood pressure 88/45 mmHg, Pulse oximetry 98% on 6L/min
HEENT:	Conjunctiva without injection or exudates. Pupils were equal, round, and reactive to light bilaterally. Fundoscopic exam revealed sharp disc margins bilaterally without evidence of papilledema, hemorrhage or exudate. Nares and oropharynx were unremarkable with moist mucus membranes. No subconjuctival hemorrhage or mucosal petechiae were seen.
Neck:	Supple without lymphadenopathy, thyromegaly, or jugular venous distention.
Heart:	Regular rhythm, normal S1 and S2. Mechanical clicks audible from bedside. 3/6 holosystolic murmur heard at apex and 2/6 holosystolic murmur at right upper sternal border. No heaves or thrills.
Lungs:	Normal respiratory effort, clear to auscultation bilaterally
Abdomen:	Normal bowel sounds, no scars, bruits, mass or organomegaly. No tenderness to palpation.
Rectal:	Non-tender, no masses, heme negative.
Extremities:	No peripheral lymphadenopathy, cyanosis, clubbing, edema. No swelling or erythema of any joints was noted. Right knee and hip in flexion, unable to fully extend due to soft tissue swelling in popliteal fossa. No tinea pedis present.
Dermatologic:	Palmar erythema present, no telangiectasias. No splinter hemorrhages, Janeway lesions or Osler's nodes. Multiple abrasions on hands, without evidence of inflammation. Warm, tender, tense, non-fluctuant, and non-crepitant dusky erythema of the upper right thigh, sparing the groin and scrotum, with rapidly advancing flat border as determined by serial skin marking. No bullae present. No lymphangitic spread.
Neurologic:	Disoriented on arrival. Central 7th cranial nerve palsy, related to prior CVA. Neurologic exam otherwise unremarkable.

Laboratory Studies

- Sodium 135 mEq/L, potassium 4.2 mEq/L, chloride 107 mEq/L, bicarbonate 22 mEq/L, blood urea nitrogen 20 mg/dL, creatinine 1.7 mg/dL, glucose 110 mg/dL, calcium 7.5 mg/dL
- Albumin 2.5 g/dL, globulin 2.8 g/dL, total protein 5.3 g/dL, AST 67 u/L, ALT 30 u/L, total bilirubin 0.9 mg/dL, alkaline phosphatase 50 u/L
- WBC 15.2 x 10^9/L with 39% bands, 52% PMNs, hemoglobin 12.5 g/dL, platelets 270 x 10^9/L
- PT 21.8 seconds, aPTT 31 seconds
- Blood cultures sent at outside hospital

Hospital Course

In the Emergency Department, a CT scan of the right leg was obtained. This revealed extensive subcutaneous edema with abnormal soft tissue attenuation material infiltrating the subcutaneous and deep fat of the upper thigh along its medial aspect, extending from the inguinal ligament to the level of the knee. No gas formation was evident on this image. Radiographic findings consistent with hematoma measuring approximately 6.8 cm by 8 cm were found in the semimembranosus and semitendinosus muscles. CT angiography later performed revealed no evidence of vessel rupture or pseudoaneurysm formation.

The patient's blood pressure responded to aggressive volume resuscitation in the Emergency Department and he was admitted to the Medicine wards.

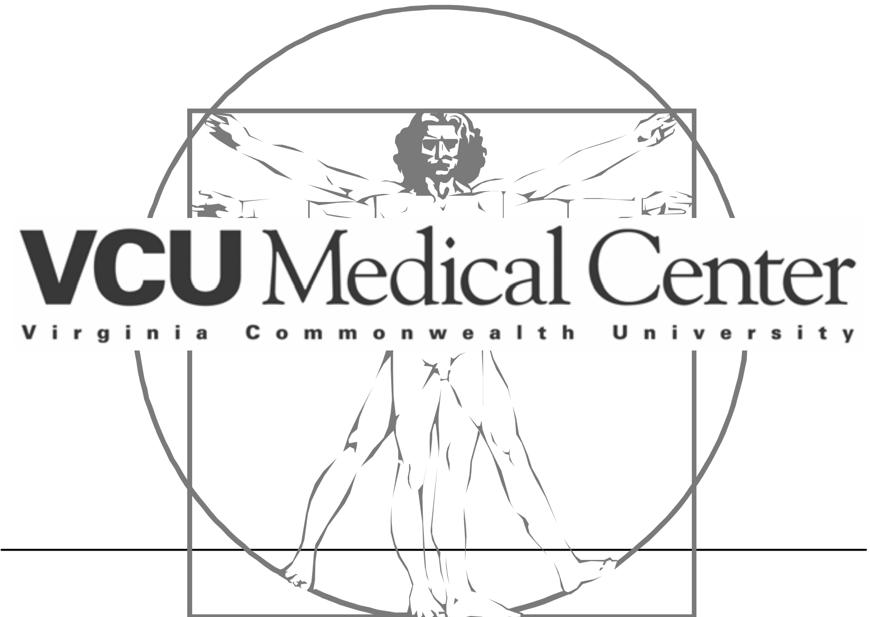
A diagnostic test result was then received by the primary physician.

Protocol prepared by Anne Lipke, MD

Department of Internal Medicine
Clinicopathologic Conference

January 26, 2006

A 54 year old Man with Rapidly Progressive Cellulitis



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