

Case History

HPI: A 55 year-old African-American man presented to the emergency department with complaints of severe right-sided back pain that radiated to his right groin. The pain began suddenly 3 weeks prior, occurring immediately after lifting a heavy object. The pain is focused and most severe in his lower thoracic spine, and so severe that he has difficulty standing up straight. He also described some loss of sensation over his thighs bilaterally, but no frank weakness in either leg.

He also noted two separate ulcerating facial lesions. The first lesion began as a “pimple” about 3 months ago on his left naris. The lesion grew larger and began eroding parts of his left naris and upper lip. At the same time, a similar lesion appeared near his right mandible. Both lesions increased in size over several months. The lesions were mildly painful but were not pruritic. Approximately several weeks after the facial lesions appeared, similar lesions occurred on the posterior aspect of his left calf and the posterior aspect of his left thigh. The calf lesion was biopsied by his primary care physician but did a tissue culture revealed only normal skin flora, and he had no improvement in the lesions despite several courses of antibiotics, including antibiotics to cover community-acquired methicillin-resistant *Staphylococcus aureus* (CA-MRSA). The biopsy did not reveal any malignant cells.

The patient also reported intermittent night sweats and an unintentional 12-pound weight loss over the past 3 months. He did not report any subjective fevers or chills, nausea or vomiting, chest pain or shortness of breath, and he had no arthralgias. He had no headaches or visual changes.

Medications:

- ❖ None

Allergies:

- ❖ NKDA

Past Medical History:

- ❖ None

Past Surgical History:

- ❖ Exploratory laparotomy after gun shot wound over 30 years ago

Family History:

- ❖ No family history of cancer or early coronary artery disease

Social History:

- ❖ Worked in a wood processing plant in Sussex County, Virginia until retiring in February 2009
- ❖ Lives alone in suburban home in Sussex County, Virginia
- ❖ Smokes one-half pack cigarettes daily for unknown number of years
- ❖ No alcohol or illicit drug use

- ❖ Enjoys fishing and reports significant sun exposure
- ❖ No tick bites, no recent travel outside of central Virginia area

Physical Exam

- Vital Signs: BP 139/72 Temperature 36.7 C Pulse 94/minute RR 16 O₂ saturation 94% on room air. Height 5'7", Weight 62.1 kg
- General: Mild acute distress secondary to back pain, thin, alert, cooperative
- HEENT: No scleral icterus, no conjunctival erythema or discharge No oropharyngeal erythema or exudate.
- Lymph: No palpable cervical, axillary or inguinal lymphadenopathy
- CV: Regular rhythm, normal rate, 1/6 short early systolic murmur heard best along left sternal border, no rubs or gallops
- Lungs: No tachypnea or accessory muscle use. Faint crackles in bilateral bases, no wheezing.
- Abdomen: Well-healed vertical midline surgical scar. Normoactive bowel sounds, soft, no distention or tenderness to palpation. No hepatomegaly, no palpable spleen, no other palpable masses.
- Skin: 4-cm diameter flesh-colored annular lesion involving left nasal sidewall extending into ala with raised rims and ulcer in center with mild purulence. 5-cm oval-shaped lesion involving right mandible, with raised rims and ulcerated central area, no surrounding erythema. 4-cm diameter lesion with similar characteristics on posterior left calf and 5-cm diameter lesion with similar characteristics on posterior left thigh.
- Back: Flexion and extension of lumbar spine limited by pain. No spinal tenderness on palpation.
- Extr: No edema
- Neuro: Alert, oriented to person, place, and time. No dysarthria. No sensory loss in lower extremities. 5/5 strength in lower extremities, proximally & distally.
- Psych: Appropriate mood and effect, cooperative

Laboratory and Imaging Studies

Sodium 135 mmol/L, Potassium 3.6 mmol/L, Chloride 98 mmol/L, Bicarbonate 26, BUN 14 mg/dL, Creatinine 0.76 mg/dL, Calcium 9.8 mg/dL

AST 17 units/L, ALT 13 units/L, ALP 79 units/L, Total bilirubin 0.6 mg/dL, Albumin 3.4 g/dL

WBC 12.9 x 10⁹/L, Neutrophils 84%, Hemoglobin 7.6 g/dL, Mean Corpuscular Volume 78.8 fL L, Platelets 452 x 10⁹/L

Iron level 13 ug/dL, Transferrin 98 mg/dL, Transferrin Saturation 9%, Ferritin 1,685 ng/mL. Reticulocyte count 2.4%, 63.6 x 10⁹
CBC differential smear with normochromic red blood cells.

Serum protein electrophoresis and urine protein electrophoresis without evidence of monoclonal gammopathy

Urinalysis unremarkable

HIV 1 and 2 Antibody: negative
Hepatitis C Antibody: negative
PPD negative during admission

MRI thoracic and lumbar spine

Pathologic compression fracture of T12 with 50% loss of vertebral body height with associated diffuse vertebral body, bilateral pedicle and transverse process enhancement. There was also a paraspinal mass spanning the T9-L2 levels. Marrow signal was diffusely decreased which likely represents fatty marrow replacement by red marrow in the setting of chronic anemia.

CT chest with contrast

Widespread disease throughout both lungs with no lobe or segment spared. Predominant pattern is widely disseminated nodules which follow a miliary, centrilobular, tree-in-bud pattern, also with bronchocentric consolidation and volume loss. Pulmonary artery enlarged at 37 mm, consistent with pulmonary artery hypertension. Punctate calcifications were noted in the liver.

A diagnostic test was performed.

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A 55 year old man with back pain and skin lesions