



Figure 1. The patient's rash present on his left flank, extending toward the inguinal region.



Figure 2. Computed tomography scan.



Figure 3. Inflammatory changes extending to the surrounding deep and subcutaneous tissues. Used with permission of J. Jeremy Thomas, MD, Department of Emergency Medicine, University of Alabama at Birmingham, Birmingham, AL.

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A 58-year-old man presented to the emergency department, complaining of urinary difficulty and back pain. Examination revealed a rash on his left flank (Figure 1). Laboratory evaluation revealed a urinary tract infection and an increased creatinine level of 1.7 mg/dL. A noncontrast computed tomographic (CT) test was ordered (Figures 2 and 3).

For the diagnosis and teaching points, see page 467.

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DIAGNOSIS:

Perinephric abscess presenting as rash. This perinephric abscess extended beyond the perinephric region into the psoas muscle and subcutaneous tissues. The abscess required surgical drainage and 2 weeks of intravenous antibiotics. *Escherichia coli* grew from urine and wound cultures. The patient improved without permanent sequela and the infection was attributed to neurogenic bladder dysfunction.

A perinephric abscess is a localized collection of purulent material between the kidney capsule and the Gerota fascia and is often the result of untreated urinary tract infection, intranephric renal abscess, recurrent pyelonephritis, obstruction, or hematogenous spread. Common etiologic organisms are *E coli*, *Proteus*, and *Staphylococcus aureus*. Onset of symptoms is insidious, and the majority of patients report pain for more than 14 days.¹ Symptoms are usually suggestive of pyelonephritis and include fever, dysuria, and flank pain. Physical findings may include costovertebral angle tenderness. Rarely, a palpable flank mass or rash is present. The mainstay of treatment is percutaneous drainage and intravenous antibiotics.²

A useful clinical feature of perinephric abscess is that patients are typically symptomatic for greater than 1 week; in contrast, patients with acute pyelonephritis are frequently hospitalized within 5 days of symptom onset. This insidious presentation may delay the diagnosis and treatment of a perinephric abscess.

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