

CASE REPORT

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Retroperitoneal abscess with subcutaneous extension: case report of a rare complication of percutaneous renal biopsy

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Abstract

Background: Infective complications following percutaneous renal biopsy are rare, even among immunocompromised. However it is important to be vigilant about such complications, to detect them early and prevent morbidity and mortality. We report a case of retroperitoneal abscess with extension to subcutaneous plane after a renal biopsy.

Case presentation: A 42-year-old female with long standing cutaneous lupus underwent renal biopsy for evaluation of nephrotic range proteinuria. She was on high dose prednisolone complicated with steroid induced hyperglycaemia. Eight weeks after the biopsy she presented with left flank pain, malaise and fever. There was a tender subcutaneous induration over the biopsy site. Contrast CT abdomen showed a retroperitoneal abscess with subcutaneous extension along the path of the biopsy needle. This was successfully treated with surgical drainage and broad-spectrum antibiotics.

Conclusions: Infections and abscess formation are rare but serious complications of renal biopsy. Immunocompromised state is a potential risk factor. Possible mechanisms and measures for prevention and early detection of this rare complication are discussed.

Keywords: Renal biopsy, Perinephric abscess, Post-renal biopsy abscess

Background

Infective complications following percutaneous renal biopsy are rare. Those are limited to case reports of perinephric abscesses, pyelonephritis and bacteraemia [1]. Many patients who undergo renal biopsy are often immunocompromised either due to underlying disease or immunomodulatory therapy. Despite this, infections in relation to renal biopsy have been exceedingly rare, even among kidney transplant recipients. We report a case of retroperitoneal abscess, which extended to subcutaneous tissues through muscles of the posterior abdominal wall, developed following a renal biopsy, a phenomenon not described before.

Case presentation

A 42 year old female with cutaneous lupus for 16 years was evaluated for new onset hypertension and ankle oedema of 2 months duration. She was found to have a nephrotic range proteinuria (3.7 g per day) with microscopic haematuria and underwent renal biopsy for suspected lupus nephritis. She did not have coagulopathy, local skin sepsis or uncontrolled hypertension at the time of the biopsy. The procedure was performed under ultrasound guidance, adhering to aseptic precautions by an experienced specialty trainee in nephrology. Two cores were obtained with two passes using a Histo Automated Spring-loaded renal biopsy gun with a 16G needle. No complications were observed during the immediate post-procedure period. Patient did not develop undue pain, haematuria or overt bleeding from the biopsy site. She was discharged from hospital the next day.

She was on prednisolone 60 mg daily and had steroid induced diabetes mellitus. Her glycemic control was poor (HbA1c 9.0%, fasting plasma glucose 188 mg/dL)

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