Methylprednisolone Pulse Therapy for Severe Absorption Fever due to Perirenal Hematoma after Percutaneous Renal Biopsy

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Dear Sir,

Perirenal hemorrhage is a common complication of percutaneous renal biopsy [1]. These hematomas are usually asymptomatic and completely resolve within 1-3 months. But, in a small number of patients, it may cause severe anemia, impairment of renal function due to compressive ischemia, and perinephric abscess [2].

Of the above, perinephric abscess is clinically important since infected blood can cause fatal septicemia and often needs surgical drainage [3], but it needs differential diagnosis from absorption fever before surgical intervention. We report here on a dramatic effect of methylprednisolone on the treatment of severe absorption fever due to perirenal hematoma which was difficult to differentiate from septic fever.

A 35-year-old man was transferred to our hospital due to oliguria for 5 days after upper respiratory tract infection. After admission, he underwent hemodialysis for 2 successive days and showed an uneventful clinical course. On the 10th hospital day, renal biopsy was performed to evaluate the cause of acute renal failure. Four hours after renal biopsy, he complained of severe groin pain. Blood pressure dropped suddenly and hemoglobin level decreased from 12.4 to 7.4 g/dl. Abdomen CT showed hematoma around the perirenal area and pelvic cavity (fig. 1). Blood transfusion (5 units) was initiated and a further decrease in blood pressure and hematocrit were not observed.

The day after renal biopsy (11th hospital day), fever developed and gradually increased up to 39.5 °C on the 14th hospital day. Abdomen CT findings (fig. 1) a Perirenal hematoma (arrow). b Accumulated blood in the pelvic cavity (arrow).
Fig. 2. Clinical course. Note dramatic drop in body temperature after methylprednisolone pulse therapy. CFZV = Cefazolin; AAP = acetaminophen; MPS = methylprednisolone.

During this period, antipyretics (acetaminophen 1,800 mg/day) and antibiotics (cefazolin 1.0 gr per 8 h) were administered but high fever was not controlled. On the 15th hospital day, the patient’s clinical status became critical. Severe rigors and dyspnea were accompanied by high fever (39.7°C). To exclude secondary infection of hematoma, ultrasonography-guided aspiration was performed, and aspirates revealed no evidence of pathogenic organism by gram stain.

On the 15th hospital day, methylprednisolone was started with 125 mg per 8 h under the diagnosis of absorption fever. Just after methylprednisolone therapy, fever subsided dramatically and the clinical condition was remarkably improved (fig. 2). Methylprednisolone was administered for 4 successive days. After the withdrawal of steroids, fever was not observed again and he was discharged on the 24th hospital day.

In this case, we experienced that methylprednisolone therapy is dramatically effective against febrile reactions due to perirenal hematoma. Steroids are potent pyretics but differentiation of absorption fever from septic fever is needed before its use. In this situation, ultrasonography-guided aspiration is helpful in excluding possible secondary infection.

References

Methylprednisolone Pulse Therapy for Absorption Fever