P-26 Meningitis-retention syndrome: the clue is in the bladder

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Meningitis-retention syndrome (MRS) is a rare combination of acute urinary retention and aseptic meningitis. Diagnosis of aseptic meningitis is sometimes challenging because of its nonspecific symptoms at presentation. We report a case in which the appearance of acute urinary retention led to the diagnosis of aseptic meningitis as the cause of fever and back pain.

A 75-year-old woman with a history of hypertension and ascending aortic dissection repair presented to our clinic with a 3-day history of diffuse back pain and fever. The back pain developed gradually, occurring with movement and improving with rest. On examination, her temperature was 37.2 degrees Celsius, jolt accentuation was positive, and severe cervical to sacral spine tenderness was noted. Laboratory tests were unremarkable except for a creatinine level of 1.1 mg/dL. Urinalysis showed 2+ bacteria, but no pyuria. After ruling out potentially serious diagnoses such as an infected aneurysm, we presumptively diagnosed pyelonephritis and treated her with intravenous (IV) cefotiam for five days.

Five days after admission, she complained of urinary frequency. Abdominal ultrasound showed 650 mL of urine in the bladder. Given her symptoms and physical examination findings, we suspected meningitis. Lumbar puncture was performed. Cerebrospinal fluid analysis showed a white blood cell count of 129/μL with 98% monocytes, glucose level less than 40% of serum glucose, and a positive varicella zoster virus-polymerase chain reaction leading to a diagnosis of MRS. All symptoms resolved after treating her with ten days of IV acyclovir.

In patients with MRS, the typical meningitis symptoms usually precede urinary retention by nine days. Almost all cases have shown a good prognosis with no specific treatment. As in our case, MRS should be considered in the differential diagnosis of patients with newly developed urinary retention plus symptoms of meningeal irritation.