**CASE PRESENTATION**

A 43-year-old man presented to the emergency room in September 2004 with a two-day history of increasing headache, myalgias and low-grade fever. No family members had been ill recently and he denied having nausea or diarrhea. On examination, he was nontoxic, with a temperature of 37.5°C, pulse of 90 beats/min and blood pressure of 146/84 mmHg. Skin rashes were not present, and the neck was supple. The patient claimed that he seldom had headaches but that he had been hospitalized in England 15 years ago for viral meningitis. He remembered receiving antibiotics at the time despite being told it was a viral meningitis. The patient underwent a computed tomography scan of the brain, which was normal, followed by a lumbar puncture. The opening pressure was not recorded, but there were $23 \times 10^6$ polymorphonuclear cells and $308 \times 10^6$ lymphocytes in the cerebrospinal fluid (CSF). The CSF protein was elevated at 1.26 g/L ($N \leq 0.45$), with a CSF glucose of 2.9 mmol/L compared with a serum value of 5.3 mmol/L. The peripheral white blood cell count was $10.5 \times 10^9/L$, with $8.0 \times 10^9$ neutrophils.

What diagnostic test was performed?
DIAGNOSIS
A polymerase chain reaction (PCR) assay for herpes simplex virus (HSV) was performed using the CSF.

The patient was suspected of having benign recurrent aseptic meningitis (Mollaret's meningitis) based on the previous history of aseptic meningitis and the current CSF findings. The PCR test was performed at St Justine's Children's Hospital (Montreal, Quebec) using standard methodology (1) and was reported positive for herpes simplex type II and negative for any other herpes virus. The specimen was not tested for enterovirus. The patient did not receive any antiviral treatment and made a complete recovery in a few days. The patient denied having prior episodes of genital herpes or severe headaches since his previous admission.

DISCUSSION
Benign recurrent aseptic meningitis was first described by Mollaret (2) in 1944 and is characterized by short episodes of meningitis with CSF lymphocytosis. These episodes alternate with symptom-free periods that can last for years. Examination of the CSF early in the course of illness may reveal a characteristic mononuclear endothelial cell (Mollaret cell) (3). Symptoms are typical for meningitis and include headache, neck and back pain, myalgias and neck stiffness. Fever as high as 40°C can occur. Transient neurological deficits have been reported. There is rapid resolution, usually within three to seven days, and the patients are well until the next episode. Although various infectious agents can cause aseptic meningitis, an infectious etiology is unusual in recurrent cases. Noninfectious causes for recurrent aseptic meningitis include Behçet's syndrome, Vogt-Koyanagi-Harada syndrome, sarcoidosis, systemic lupus erythematosus, intracerebral and pineal cysts, and adverse reactions to chemicals (4).

A viral etiology of Mollaret's meningitis has long been suspected but only recently confirmed with the introduction of PCR. Since 1991, when the first positive result for HSV was obtained by PCR using CSF, a total of 77 patients (present case included) have been tested by this method (4-7). There were 68 positive results for HSV and all but three were type II. Although enterovirus testing was not performed on the CSF sample in our case, a recent series of 14 cases (5) showed only evidence of HSV infection despite extensive viral testing. The possible explanations for negative PCR cases include timing and technical performance issues as well as other probable diagnoses. Virtually all patients with Mollaret's meningitis do not have evidence of active herpes skin infection at the time of presentation; as such, the pathogenesis remains unclear. However, given the predominance of type II HSV in Mollaret's meningitis, it has been postulated that the disease is a result of reactivation of a latent herpetic infection in the sacral root ganglia. There is also a strong female predominance (57 of 77 cases). Treatment of Mollaret's meningitis is usually not necessary, but antiviral medication has been used to try and prevent recurrences.

REFERENCES