

## Introduction

Benign recurrent aseptic meningitis or “Mollaret’s meningitis” named after the French neurologist Pierre Mollaret who first described the syndrome, is a rare benign form of painful meningitis in which patients have recurrent episodes that often resolve spontaneously. The majority of these cases are secondary to herpes simplex virus type 2 (HSV2). Strategies to prevent recurrence have been explored, including suppressive therapy with antivirals.

## Case Description

### HPI:

- 36-year-old male with a history of recurrent herpes simplex virus type 2 lymphocytic meningitis who presented with acute onset severe headache, neck pain and stiffness, photophobia, nausea, and vomiting.

### PMH:

- Recurrent HSV2 meningitis (five episodes)
- Hypertension
- Alcohol use disorder
- Tobacco use disorder

### SH:

- Lives with wife in Wilsonville, OR
- Works in construction
- Chews tobacco daily
- Drinks 3-4 beers daily
- Denies illicit drug use

### Medications:

- Hydrochlorothiazide/lisinopril combo pill

### Physical Exam:

- Tmax 100.2°F, hemodynamically stable
- Notable for:
  - Young male in moderate distress lying in a dark room with eyes covered, normal mentation
  - Nuchal rigidity
  - Positive Brudzinski and Kernig signs
  - No rash

### Labs:

- CBC with leukocytosis 13.2 with increase neutrophil count
- CMP within normal limits
- Lactic acid 2.87

### Imaging:

- Head CT without contrast showed no acute intracranial process

CSF Findings		Reference Range
WBC count	540 (H)	0-6 (cells/ $\mu$ L)
RBC count	11 (H)	0-0 (cells/ $\mu$ L)
Mono, Histo/Meso	36%	
Neutrophil	26%	
Lymphocyte	35%	
Eosinophil	1%	
Basophil	2%	
Protein	107 (H)	15-45 (mg/dL)
Glucose	63	40-70 (mg/dL)

Table 1: CSF analysis showed a lymphocytic predominance, elevated protein and normal glucose

### Hospital Course:

- The patient was treated empirically for both bacterial and viral meningitis with IV ceftriaxone, IV vancomycin, and IV acyclovir
- Rapid improvement in the first 12-24 hours
- Transitioned off antibiotics and onto oral acyclovir to complete a 7 day total course
- HSV 2 PCR positive

## Benign recurrent aseptic meningitis

Recurrent episodes of meningitis

Usually lasting 2-5 days with spontaneous recovery

One-half of patients have transient neurological manifestations<sup>3</sup>

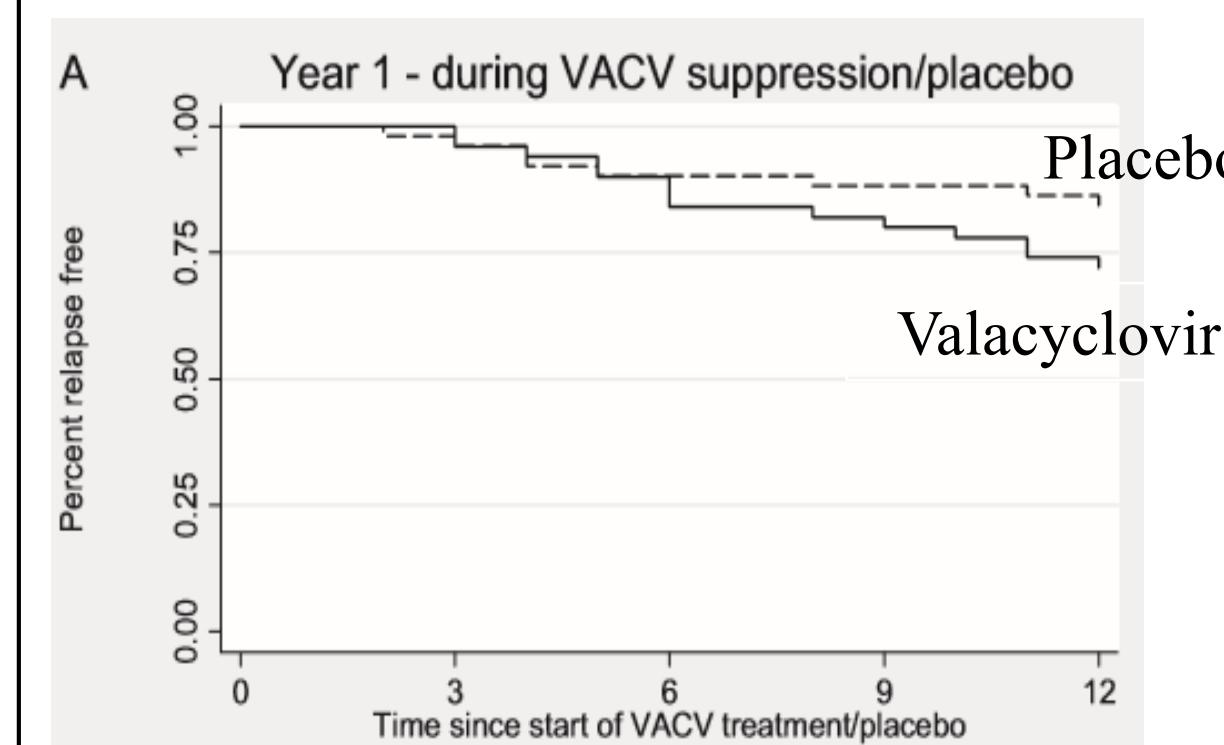
Characteristic CSF findings show a lymphocytic pleocytosis

HSV PCR of CSF is positive in 85% of patients<sup>4</sup>

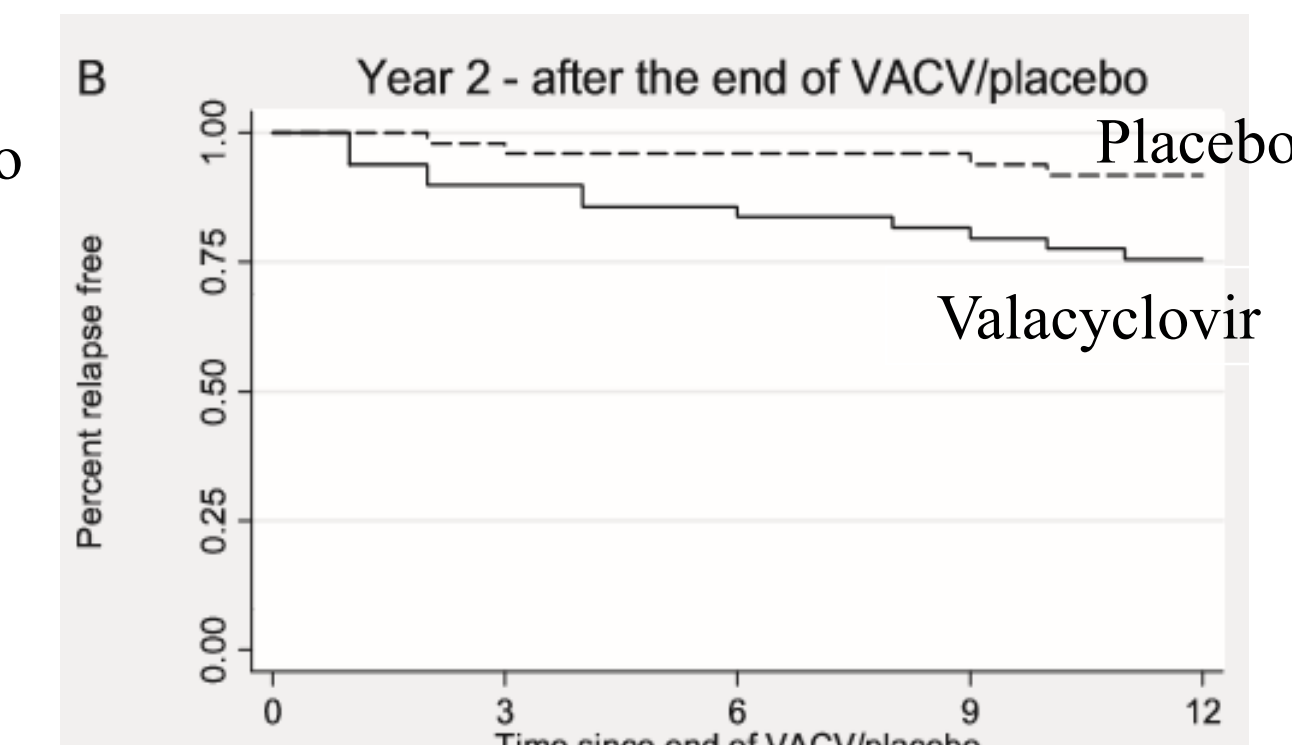
Table 2: Characteristics of recurrent benign aseptic meningitis

## Can we prevent recurrence in these patients?

- It is known that suppressive antivirals have been shown to decrease the frequency of recurrent genital herpes<sup>2</sup>
- A logical hypothesis is that the use of suppressive antiviral therapy may decrease the recurrence of meningitis episodes
- Aurelius E, et al. performed a double-blind, randomized controlled trial comparing valacyclovir versus placebo both during therapy and for the year following cessation of valacyclovir and placebo



(HR, 1.86 [95% CI, .78–4.43])



(HR, 3.29 [95% CI, 10.06–10.21])

## Take home points

- Benign recurrent aseptic meningitis is a rare benign form of recurrent meningitis
- The majority of these cases are secondary to herpes simplex virus type 2
- Suppressive therapy did not decrease recurrence of meningitis compared to placebo<sup>1</sup>
- Suppressive therapy with antivirals actually produced a rebound effect after cessation of the active drug, which resulted in a higher recurrence of meningitis in patients treated with suppressive therapy

## References

1. Aurelius E, et al. Long-term Valacyclovir suppressive treatment after herpes simplex virus type 2 meningitis: A double-blind randomized controlled trial. Clin Infect Dis 2012; 54:1304-1313.
2. Martinez V, Caumes E, Chosidow O. Treatment to prevent recurrent genital herpes. Curr Opin Infect Dis 2008; 21:42-8.
3. Miller S, Mateen FJ, Aksamit AJ. Herpes simplex virus 2 meningitis: a retrospective cohort study. J Neurovirol 2013; 19:166-171.
4. Shalabi M, Whitley RJ. Recurrent benign lymphocytic meningitis. Clin Infect Dis 2006; 43:1194-1197.