When a Common Condition Becomes a Clinical Conundrum: To Treat or Not to Treat with Antivirals

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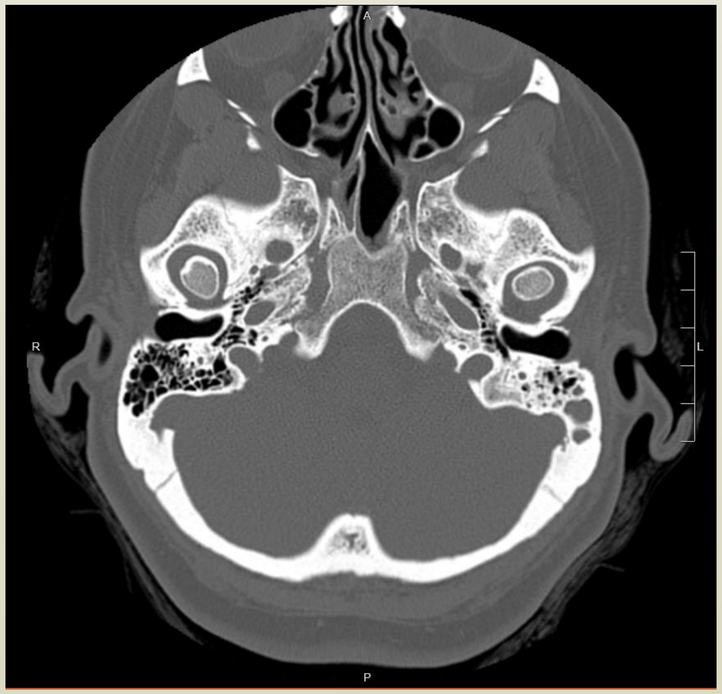
INTRODUCTION

Facial nerve paralysis (FNP) as a complication of acute otitis media (AOM) is relatively rare in the era of antibiotics. When it occurs, attention should be directed to searching for other potential etiologies of FNP, such as viral infections. We present here a patient who presented with acute left-sided facial nerve paralysis while being treated for an AOM.

CASE PRESENTATION

- A 35-year-old healthy female presented to the hospital with left facial droop after waking up from sleep.
- She had symptoms of an ongoing upper respiratory tract infection, high-grade fever and left ear pain.
- The left ear pain was due to a bulging, inflamed tympanic membrane.
- She was started on amoxicillin–clavulanic acid for left acute otitis media.
- In the emergency room, she complained of intense headache in addition to the left facial droop.
- Exam showed normal tympanic membranes and features consistent with lower left facial nerve palsy.
- Initial computerized tomography (CT) scan of head was negative for ischemia or bleeding.
- Magnetic resonance imaging was done to exclude multiple sclerosis or stroke.
- She was started on broad-spectrum antibiotics and a lumbar puncture was done to evaluate meningitis/ encephalitis.
- The cerebrospinal fluid analysis showed glucose of 48, protein of 61, and white cell count of 210 with 80% lymphocytes.
- Gram stain showed no organisms and polymerase chain reaction for herpes simplex (HSV) and enterovirus was negative.
- CT of the temporal bone was obtained, which showed opacification of the left mastoid cells with no abscess or bony erosion (see image below).



CT image of temporal bone illustrating opacification of left mastoid cells

- HIV and Lyme disease were also excluded by serology.
- A diagnosis of aseptic meningitis in a setting of possible viral AOM/ Bell's palsy was entertained.
- Antibiotics were stopped and the patient was started on steroids and acyclovir.
- Patient's lower motor neuron facial palsy and headache improved.

DISCUSSION

- AOM is a relatively common clinical condition, but is rarely complicated by FNP.
- Recent literature has thrown light on viruses causing AOM and resulting in facial nerve palsy.
- Though HSV is thought as the culprit in most of these cases, others like rhinovirus or adenovirus also play a part.
- Rhinoviruses and adenoviruses often cause the common cold.
- Glucocorticoids are indicated in the treatment of facial nerve palsy of any etiology, as there is evidence to suggest neurotoxin-mediated nerve swelling or direct injury by infectious organism.
- Adjuvant antivirals may also be prescribed when the definitive cause is unknown.
- Our patient responded well to the combination of steroids and antivirals, suggesting that there is benefit in treating patients with idiopathic Bell's palsy with this remedy.

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