An Unusual Case: 41 year old with sudden facial weakness

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Introduction

- Bell’s palsy: an acute peripheral palsy involving injury of the seventh cranial nerve.
- Manifests as ipsilateral facial paralysis.
- Given the similar presentation of this condition to stroke, a time-critical illness, recognition of the unique presentation of this condition is essential.

Patient Presentation

History of Present Illness:

- 41 year-old man with history of genital herpes presents to the clinic with sudden, 1-day onset of continuous tearing of the right eye, difficulty closing the right eyelid, and skewed smile.
- Denies headache, visual deficit, dysphagia, or extremity weakness/sensory deficit.
- No prior history of similar symptoms
- Review of systems was otherwise negative

Family History:

- Both parents and a brother and sister all alive and well

Social History:

- No history of tobacco use, alcohol use, or other drug use
- Employed as a contract painter
- Immigrated from Venezuela twelve years ago. Lives alone.

Medications:

- None

Physical Exam:

- Vital Signs: afebrile, BP 110s/80s, HR 80s, SpO2 97% RA
- Neurological Examination: Partial weakness of the right side of the forehead, right sided brow droop, incomplete closure of the right eyelid, and drooping of the right corner of the mouth.
- No vesicles, scabbing, or other skin examination
- Remainder of physical exam otherwise normal

Laboratory Data/Imaging:

- No labs or imaging obtained

Clinical Course

- Diagnosed with Bell’s palsy
- Started seven-day course of prednisone 60mg daily and valacyclovir 1mg TID
- Artificial tear drops and goggles
- Complete resolution of symptoms within one month. Has had no recurrence since then.

Discussion

- Formally known as idiopathic peripheral facial nerve palsy
- Inflammation of the seventh cranial nerve (CNVII), leading to compression of the nerve usually at the labyrinthine segment.
- Presents as acute, ipsilateral facial muscle paresis/paralysis
  - Forehead
  - Eyebrows
  - Angle of mouth
- Visceral effects may be present
  - Altered gland secretion
  - Sensory deficit
- Most severe within 3 weeks
- Cause:
  - Idiopathic
  - HSV
  - VZV, EBV, Coxsackie, Rubella, Adenovirus
- Diagnosis is primarily based on history and exam
- Further testing include electrodiagnostic, imaging, and serology
- Differential Diagnosis:
  - Stroke
  - Ramsay- Hunt
  - Tumor, GBS, Otitis media
- Management
  - Steroids within 3 days onset
  - For severe cases: coadministration of oral valacyclovir/acyclovir for 1 week
  - Eye care (artificial tear drops to prevent dryness, protective glasses/goggles, taping)
- Prognosis
  - Spontaneous recovery within 3-6 months
  - Recurrence infrequent (7-15%)

Teaching Point

- Peripheral lesions such as Bell’s palsy result in ipsilateral weakness involving both the upper and lower face
- Central lesions such as ischemic stroke result in contralateral weakness involving only the lower face.
- Clinical translation – If there is forehead sparing, suspect a central process such as stroke!

Contacts

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References