

Practice | Five things to know about ...

Bell palsy

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1 Bell palsy accounts for 80% of cases of unilateral lower motor neuron facial paralysis¹

It has an annual incidence of 20–30 cases per 100 000 population² and can occur at any age; median age at onset is 40 years.² The cause is unknown, although the herpes simplex viral genome is detected in the facial nerve endoneurial fluid in 79% of cases.^{1–3}

2 Onset is sudden and paralysis progresses within hours, affecting muscles of facial expression, including those in the forehead

Complete paralysis includes impaired forehead wrinkling, incomplete lid closure and a flattened nasolabial fold.⁴ Bell palsy is diagnosed clinically, and no tests are indicated unless the presentation is atypical.¹ A neurologic examination should look for evidence of stroke, multiple sclerosis and brain cancers. Bilateral presentations should raise suspicion for a systemic disease such as sarcoidosis, Guillain–Barré syndrome or Lyme disease.

3 Without treatment, 70% of patients with complete and 94% with incomplete paralysis will recover facial function within 6 months⁴

The House–Brackman severity score can be used to assess recovery.^{4,5} Recurrence occurs in 7%–8% of patients.^{2,3} Older age, hypertension, loss of taste and complete paralysis are risk factors for a poorer prognosis.² Persistent complications include abnormal facial muscle movement, tearing and lacrimation.^{1–4}

4 Patients with Bell palsy should receive corticosteroids within 48 hours of symptom onset, regardless of severity

Treatment with a total of 450–500 mg prednisone over 10 days has a number needed to treat of 8 to achieve a House–Brackman score of grade 2 or less after 4 months for patients with severe or complete paralysis.⁵ Antiviral medications can be considered in severe cases.^{4,5} Eye protection (sunglasses, eye patch, lubricating tears or ointments) should be used routinely to prevent corneal abrasions, ulceration and keratitis.^{4,5} Other options for persistent symptoms include facial physiotherapy for weakness, botulinum toxin injections for facial asymmetry and surgery to facilitate eyelid closure.^{3,4}

5 Investigation for upper motor neuron lesions or local compressive disorders should be considered for patients with new symptoms, progressive weakness or incomplete recovery^{4,5}

New symptoms warrant investigation at any time; incomplete recovery should be investigated at 3 months or later. Clinicians should consider brain imaging (computed tomography or magnetic resonance imaging), electromyography and referral to a neurologist or otolaryngologist.

References

1. Zandian A, Osiro S, Hudson R, et al. The neurologist's dilemma: a comprehensive clinical review of Bell's palsy, with emphasis on current management trends. *Med Sci Monit* 2014;20:83-90.
2. Murthy JMK, Saxena AB. Bell's palsy: treatment guidelines. *Ann Indian Acad Neurol* 2011;14(Suppl 1):S70-2.
3. Tiemstra JD, Khatkhate N. Bell's palsy: diagnosis and management. *Am Fam Physician* 2007;76:997-1002.
4. Baugh RF, Basura GJ, Ishii LE, et al. Clinical practice guideline: Bell's palsy. *Otolaryngol Head Neck Surg* 2013;149(suppl):S1-27.
5. de Almeida JR, Guyatt GH, Sud S, et al. Management of Bell palsy: clinical practice guideline. *CMAJ* 2014;186:917-22.

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