**Guideline for management of Idiopathic Facial palsy**

**Introduction-**

Facial Palsy in children may be idiopathic or secondary to infection, inflammation, tumor , trauma or vascular events. However, for majority of patients, cause can be unknown and we refer to it as Idiopathic facial palsy (IFP) or Bell’s palsy. Aim should be to exclude other causes of facial weakness before initiating management strategy for IFP.

Idiopathic facial palsy (IFP) is characterised by acute onset of unilateral facial weakness and inability to close eye on the affected side. Incidence in childhood vary between 1-3/100,000. IFP is generally a self-limiting condition showing signs of recovery between 3 weeks and 3 months. A vast majority of children (80-90%) have resolution of signs by 6 months approaching 100% by 12 months. Risk of recurrence has been estimated at 7-10%.

**History and examination:**

**History should include**:

* Duration and evolution of symptoms
* Previous episodes
* Recent viral / ear infection or trauma to head or face
* Easy bruising / lethargy
* Recent immunisation
* Tick bites (travel to areas endemic for Lyme’s disease )

**Features of Idiopathic facial palsy**

* Acute onset (over hours or not >1-2 days)
* Unilateral Lower motor neurone weakness
* Preceding posterior auricular pain
* Distortion of taste sensation
* Hyperacusis ( increased sensitivity to sound)
* Decreased hearing
* Excessive lacrimation
* Eye discomfort

IFP is diagnosis of exclusion so it is important to rule out other causes (as below) of Facial Palsy during history and examination.

* Congenital
* Trauma including basal skull fracture, injury to middle ear
* Infection (viral, bacterial, protozoal) including Otitis externa, Otitis media, mastoiditis , Parotitis, Encephalitis, Lyme’s disease, Cat scratch disease
* Neoplastic including Leukaemia, intracranial space occupying lesion, Cholesteatoma
* Vascular, Iatrogenic and Autoimmune causes

Full systemic examination is to be performed.

Examination should include detail ENT assessment of ear, parotid area, mastoid and Neurological examination to include cranial nerves examination, peripheral power , tone, reflexes and coordination to exclude focal neurological signs.

Document severity of facial weakness on admission, if possible, using House Brackmann score (see appendix 1) / ask parents to use their phone camera.

**Management:**

1.Review by Paediatric middle grade- Confirmation of facial palsy

2. Record blood pressure (Hypertension may be rarely associated with facial palsy)

3. FBC and blood film (to rule out Leukaemia) before commencing oral steroids.

4. Diagnosis of Idiopathic Facial Palsy

**Consider alternative**

**diagnosis if:**

* Pallor or bruising
* Lymphadenopathy
* Hepatosplenomegaly
* Rash/vesicles
* Arthralgia
* Headache

**Discuss with Neurology if**:

* Abnormal Neurologic signs
* Signs or symptoms suggesting raised ICP
* Recurrence of IFP

Consider neuroimaging

**Discuss with ENT If:**

* Otoscopy-vesicles/discharge
* Hearing loss
* Parotid swelling
* Mastoiditis

Add CRP and cultures, Consider antibiotics/ Aciclovir, Consider neuroimaging

**Treatment:**

**Eye care:** For all patients

1) Lubricating Hypermellose eye drops (artificial tears) QDS

 2) Lacri-Lube eye ointment and covering of affected eye at night

**If within 72 hrs of onset**:

Treat with oral steroids ( Reference 1)

Prednisolone (1mg/kg/day – Maximum of 60mg/day) 7 day course, along with H2 blockers / PPI.

Consider acyclovir and consulting ENT team if vesicles noticed in the ear

**If beyond 72 h of onset**: Discuss individual case with Consultant

**Follow up:**

Arrange to review in 3-4 weeks in discussion with consultant to ensure IFP not worsening

Paediatric outpatient follow up in 3 months time.

**Review in 3 months in Paediatric outpatient clinic:**

1. If resolution of symptoms or evidence of significant clinical improvement: consider discharge with advice regarding recurrence and if onset of new symptoms to seek medical advice.
2. If no resolution of symptoms or no evidence of clinical improvement or recurrence within 3 months:
* Consider alternative diagnosis
* Consider Neuroimaging (MRI)
* Consider serological examination HSV,EBV,B burgdorferi
* Consider discussing with Neurology /ENT /Microbiology

**Key References:**

(1) Madhok et al Corticosteroids for Bell’s palsy *The Cochrane review* July 2016

(2) MalikV 15 minute consultataion : A structured approach to management of facial paralysis in a child*. British medical journal* 2012:97:82-85

(3) Sullivan etal .Early treatment with prednisolone or acyclovir in Bell’palsy *.The new England journal of Medicine* 2007:357(16)pp1598-1607

**Appendix 1.**

 **House-Brackmann Facial Nerve Grading System**

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| **Grade 1** | **Normal** Normal facial function in all areas |
| **Grade 2** GrossAt rest Motion | **Slight Dysfunction**Slight weakness noticeable on close inspection may have slight synkinesisNormal symmetry and toneForehead – Moderate to good functionEye –Complete closure with minimum effortMouth – Slight asymmetry |
| **Grade 3**GrossAt restMotion  | **Moderate Dysfunction**Obvious but no disfiguring difference between two sides; noticeable but not severe synkinesis,contracture or hemifacial spasmsNormal symmetry and toneForehead – noneEye- incomplete closureMouth- slight weak with maximum effort |
| **Grade 4**GrossAt restMotion | **Moderate severe Dysfunction**Obvious weakness and /or disfiguring asymmetryNormal symmetry and toneForehead –noneEye-incomplete closureMouth-asymmetric with maximum effort |
| **Grade 5**GrossAt restMotion | **Severe Dysfunction**Barely perceptible motionAsymmetryForehead- noneEye-incomplete closureMouth slight movement |
| **Grade 6** | **Total paralysis** No movement |

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| House JW and Brackmann DE. Facial nerve grading system. *American Academy of Otolaryngology—Head and Neck Surgery*. 1985;93:146-147.  |

Dr S.Mohite, Dr Nootigattu VKT, Dr Ashtekar SA