

Paediatric Pearls

by Dr Julia Thomson, Paediatrician

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Monthly paediatric update newsletter for all health professionals working with children – put together by Dr Julia Thomson, Paediatric Consultant at Homerton University Hospital, London, UK. Housed at www.paediatricpearls.co.uk where comments and requests are welcome!

Temporal Branches
Innervate the frontalis, orbicularis oculi and corrugator supercilii

Zygomatic Branches
Innervate the orbicularis oculi

Buccal Branches
Innervate the orbicularis oris, buccinator and zygomaticus

Marginal Mandibular Branch
Innervates the mentalis.

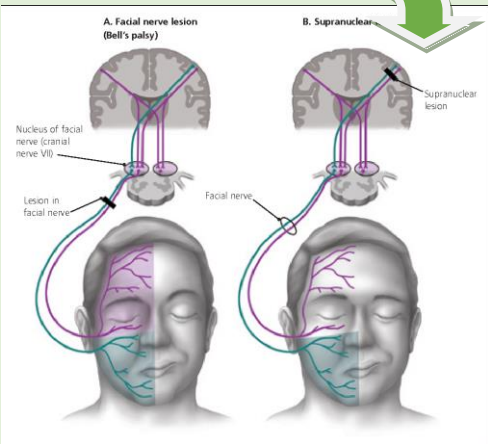
Cervical Branch
Innervates the platysma

The Emoji guide to the extracranial branches of the facial nerve
with thanks to Dr Rhea Bisheswar

Bell's palsy has been covered in Paediatric Pearls before - see [here](#) for a discussion around whether or not to treat with oral steroids as in adults. Rhea produced this lovely diagram for her audience when she was presenting a case with VIIth nerve palsy recently. Bell's is a lower motor neurone problem so the temporal branches of the nerve and therefore the child's forehead will be affected.

If the child can still frown or look surprised then the facial weakness has an upper motor neurone cause and needs further investigation.

The [Cochrane review of Bell's management](#) was updated in 2016 but there have been no publications on the use of steroids in young children since 1999. Then, [Unuvar et al](#) reported a benefit in children aged 24-74 months from corticosteroids but wide CIs allowed for the possibility of both no effect and a large effect. (RR 0.14, 95% CI 0.01 to 2.61).



There is an [on-going Australian RCT](#) on steroids in children which should report in 2020. Watch this space!

LESSONS FROM THE FRONT LINE

MANAGEMENT OF ACUTE PSYCHOSIS IN THE ED

with thanks to Dr Manal Hamed

A 4 year old was referred by her GP to the paediatric ED with an acute onset of a change in behaviour, agitation and hyperactivity. Behaviour was challenging at school. Careful history and examination elicited that she had not opened her bowels for 10 days and was faecally impacted. An enema cured the psychotic symptoms. There is nearly always an organic cause for apparent "disorganised thinking, accompanied by delusions or hallucinations" in young children and child psychiatrists are keen for us to rule our organic causes before accepting a referral.

- primary psychosis is rare in pre-pubertal children and is a diagnosis of exclusion (see algorithm below).
- involve senior paediatricians early; not many disorientated children have porphyria. Parents find changes in their children's behaviour very distressing.

Child with acute psychotic symptoms

- Clear History** - infective, travel, social, substance abuse, pre-existing morbidity
- Supportive strategies** - clear communication, minimum sensory disturbance, managing agitation

Stabilisation – Airway, Breathing, Circulation
Safety – Medical and Physical restraint if required.

Check Blood glucose and Electrolytes

Neurological Examination

- Focal Neurological Deficit**
 - 1st line investigations - personalise based on clinical presentation
 - CT Head (in emergency) or MRI Brain (preferable)
 - Stroke
 - Trauma
 - Intracranial space occupying lesion
- No Focal Neurological Deficit**
 - 1st line investigations: personalise based on clinical presentation
 - FBC, CRP, ESR
 - LP -----Encephalitis
 - LFT, U&E -----Hepatic/ Uremic encephalopathy
 - EEG -----NCSE/PLEDS
 - Toxicology screen --- Substance abuse
 - Thyroid profile -----Thyrotoxicosis
 - Plasma Ammonia -----Urea Cycle Defect
 - MRI Brain (if not already performed in A&E)
 - 2nd line
 - Autoimmune Encephalitis - Anti NMDAR, Anti VGKC, Anti TPO Ab
 - Copper Caeruloplasmin (Wilson's Disease)
 - Urine for Porphyrin

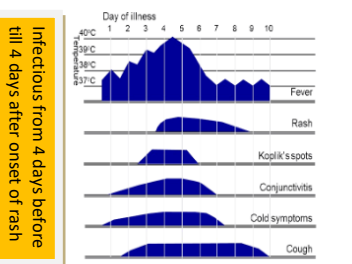
If no organic cause found
Consider primary psychiatric illness

[Anil Vasudev Israni et al. Arch Dis Child Educ Pract Ed 2018;103:184-188](#)

Have you ever kept a sleep diary?

Download the "[Teen Sleep Diary](#)" for your patients from the National Sleep Foundation. But have a go at it yourself too. Most readers of Paediatric Pearls will probably consume an alarming amount of caffeine in a week, be on a computer within the hour before going to bed and never be able to make up their sleep debt. Maybe we should take a bit of our own medicine...

Figure 1: Typical clinical course of primary measles infection



Measles outbreak:

Between Jan and Oct 2018 there were 913 confirmed cases of measles in England, 3x the number of cases in England in 2017. 30% required admission to hospital. 37 deaths across Europe. PHE estimates that **since the introduction of the measles vaccination in 1968, 20 million measles cases and 4,500 deaths have been avoided (UK)**.
More on MEASLES next month....

Seasonal trivia: Why is haemophilia type B called "Christmas Disease"?

After Stephen Christmas who was the first known patient with it. Researchers in Oxford looked at his blood when he was 5 and found, not the expected deficiency of clotting factor VIII (haemophilia A), but lack of factor IX. They named the disease after their patient. Stephen Christmas contracted AIDS as a result of all his transfusions and died in 1993 aged 46. In [2017, the NEJM](#) reported on successful gene therapy for Haemophilia B.

Christmas Disease aka Haemophilia B

An X-linked recessive genetic disorder that causes clotting problems through missing or defective factor IX

Those affected bleed easier, and for longer.

Easy bruising

Spontaneous nosebleeds

Haemarthrosis (bleeding into joint spaces)

'Tix'-like stool (melena) from GI bleeding

Red or Cola coloured urine (blood)

Male (X-linked)

'Coffee ground' vomitus from clotted blood

artibiotics