Paediatric Pearls

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Previous editions are now all available at www.paediatricpearls.co.uk

6 week check series

Sacral dimple (with thanks to Dr Vani Penumala)

The term "spinal dysraphism" describes a group of congenital abnormalities that can cause progressive neurological damage. Some of them, left undetected, can have a deleterious effect on neural and physical function. As skin and nervous tissue are both of ectodermal origin, anomalies of each may occur simultaneously and congenital midline cutaneous lesions are widely recognized as markers of 'occult spinal dysraphism'(OSD). Occult spinal dysraphism is characterized by skin covered lesions *without* exposed neural tissue eg. subcutaneous lipomas, dermal sinuses, haemangioma, port wine stain, tails, localised hypertrichosis, deviation of gluteal furrow or a combination of two or more of the above.

Midline sacral dimples are the most common dorsal cutaneous stigmata in neonates. We used to get more worried about them than we needed to as we now know that an isolated sacral skin dimple poses an extremely low risk for sacral dysraphism and does not warrant a radiologic investigation.

High risk dimples ie. deep dimples, base not visualised, larger than 0.5cm, located > 2.5cm from anal verge or associated with other cutaneous markers should however undergo evaluation with radiologic imaging. Ultrasound imaging is readily available but MRI spine is the recommended investigation.

Reference: Skin Markers of Occult Spinal Dysraphism in Children. A Review of 54 Cases

Guggisberg D et al. *Arch Dermatol* 2004;**140**:1109-1115. Full text available at http://archderm.ama-assn.org/cgi/content/full/140/9/1109#ACK

Parent information at http://www.mayoclinic.com/health/sacral-dimple/DS00753

This month's featured NICE guideline: *Prescribing of antibiotics for self-limiting respiratory tract infections in adults and children in primary care* (http://guidance.nice.org.uk/CG69/Guidance publ 2008)

The term "respiratory tract infection" (RTI) is taken to mean any infectious diseases of the upper or lower respiratory tract. They account for 60% of all antibiotic prescribing in general practice. This guideline covers children treated in walk-in centres and the emergency department as well as GP surgeries.

It covers children >3 months and adults with a history suggestive of:

- Acute otitis media
- Acute tonsillitis
- Common cold
- Acute rhinosinusitis
- Acute cough

3 antibiotic prescribing strategies are described in a simple to use care pathway: http://www.nice.org.uk/nicemedia/live/12015/41322/41322.pdf

1) NO ANTIBIOTICS:

Give reassurance that they are not needed immediately and may have unwanted side effects. Offer clinical review if condition worsens.

2) DELAYED ANTIBIOTICS:

Give advice on when and how to use the prescribed medication. Advise to re-consult if symptoms worsen despite using the medication.

3) IMMEDIATE ANTIBIOTICS:

Only give if the patient is systemically unwell, has signs or symptoms suggestive of complications (eg. pneumonia, mastoiditis) or has pre-existing comorbidity (eg. immunosuppression, cystic fibrosis, ex-prem)

All the listed pathologies above should go into the "no" or "delayed" groups unless they fall into one of the following subgroups when there is an argument for giving the patient "immediate" antibiotics:

- bilateral acute otitis media in under 2s
- acute otitis media with otorrhoea in children
- acute sore throat if 3 or more of the Centor criteria (tonsillar exudate, tender cervical lymphadenopathy, fever, absence of cough) are present

People in the "delayed" or "no" antibiotics groups should be advised about the average total length of their illness as listed below and should be advised about managing symptoms including fever (see www.nice.org/CG47 for children <5).

Acute otitis media	4 days
Acute tonsillitis	7 days
Common cold	10 days
Acute rhinosinusitis	2.5 weeks
Acute cough	3 weeks

2 studies from the literature supporting the lack of need for a chest x-ray in most children with chest signs and symptoms:

This was a prospective observational study of 2071 children, 21 years or younger, presenting to the Paediatric ED and having a CXR for suspected pneumonia. X-ray findings were compared with physicians' clinical assessments. With some overestimation, physicians' assessment of the likelihood of pneumonia correlates well with radiographic diagnosis of pneumonia. Neuman et al. Physician Assessment of the Likelihood of Pneumonia in a Pediatric Emergency Department. Pediatr Emerg Care 2010;**26**(11):817-22. Abstract available at http://www.ncbi.nlm.nih.gov/pubmed/20944506

Among afebrile children (temperature of >38°C) with wheezing, the rate of pneumonia was very low (2.2% [95% CI: 1.0–4.7]).The routine use of chest radiography for children with wheezing but without fever should be discouraged. Pediatrics 2009;124:e29–e36. Full text at http://pubget.com/paper/19564266

School refusal

25% of school children refuse to attend school at some point and this becomes a routine problem in 2%. The 3 sites below are useful ones to point distressed parents towards. Prognosis is better if school refusal is nipped in the bud early; chronic school refusal is linked to mental health issues as an adult.

http://www.aboutourkids.org/articles/understanding_school_refusal

http://www.emedicinehealth.com/school_refusal/article_em.htm

http://www.cyh.com/HealthTopics/HealthTopicDetails.aspx?p=114&np=141&id=1698

- An English site which says the same things as the first 2 American ones but also touches on the separate entity of truancy