Paediatric Pearls

by Dr Julia Thomson, Paediatrician

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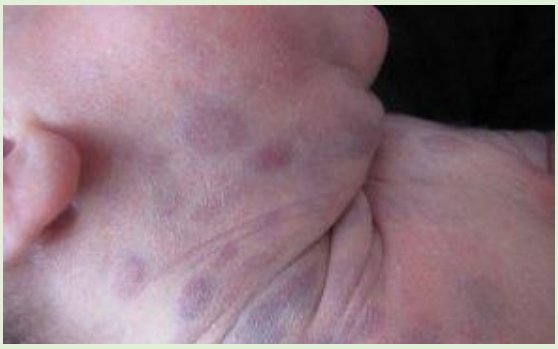
Monthly paediatric update newsletter for all health professionals working with children – put together by Dr Julia Thomson, Paediatric Consultant at Homerton University Hospital, London, UK. Housed at www.paediatricpearls.co.uk where comments and requests are welcome!

Dermatological manifestations of systemic disease Blueberry Muffin Syndrome by Dr Anusuya Kawsar, dermatology registrar at Barts Health NHS Trust.



Picture and more information at:
https://www.dermnetnz.org/topics/blueberry-muffin-syndrome/

- Widespread purpuric macules / nodules from birth. It's rare, abnormal and needs investigation.
- Think: extramedullary erythropoiesis, purpura or metastases
- Causes can be divided into **tumours, blood disorders, or congenital infections**
- Assess for anaemia and hepatosplenomegaly
- Congenital infection may be associated with IUGR, jaundice, impaired development of the central nervous system
- Involve the multi-disciplinary team: dermatologists, haematologists / oncologists and infectious diseases specialists
- Treatment is dependent on the underlying cause

Tumours
Congenital leukaemia cutis (AML)
Langerhans cell histiocytosis
Neuroblastoma
Congenital rhabdomyosarcoma

Blood disorders
Hereditary spherocytosis
Twin-twin Transfusion syndrome
Haemolytic disease of newborn

Congenital Infections
TORCH
Hepatitis B
Coxsackie virus
Syphilis
VZV
Parvovirus B19

Coming soon in this dermatology series:
Carotenaemia and acrodermatitis enteropathica

Medically Unexplained Symptoms (MUS) Part 1 – background:

Talking to families: try "it is well known that emotions can produce physical reactions in the body eg. we blush when embarrassed, swallow hard or get "butterflies" when nervous".

There is a newly uploaded good 1-2 hour e-learning resource on MUS from MindEd at https://www.minded.org.uk/Component/Details/525083. Log in to count the CPD credits. I've reproduced some of the key learning points here and recommend you do the full module.

- Common manifestations in children are abdominal pain, headaches, fatigue and muscle pains
- "Pseudo-neurological" symptoms eg. gait disturbances, sensory loss or non-epileptic seizures are less common and rarely exhibited below 7 years
- Illness worries are common in children, but severe health anxiety is unusual
- Long term prognosis ranges from complete recovery to persistent symptoms into adulthood. The older the child, the less likely they are to fully recover so recognise and treat early. Half of severe cases have anxiety or depressive disorders and benefit from seeing CAMHS.
- Children with a functional disorder can have a well-defined physical disorder at the same time

Non-epileptic attack disorder (NEAD) is difficult to manage and difficult to explain to families. http://www.neurokid.co.uk/ houses information for families and young people living with NEAD.

Part 2 next month – Risk factors and the "filter theory"

LESSONS FROM THE FRONT LINE – first afebrile seizure

A 14 year old girl, lying on the sofa at a family party playing with her phone, has her first generalised tonic clonic seizure. It lasts about a minute, she bites her tongue and is incontinent of urine. She is unrousable for 20 minutes afterwards and then back to her normal self just as the ambulance draws up at the ED.

See https://www.bcmj.org/articles/approach-child-first-afebrile-seizure for a practical approach to this child's further management.

4 pieces of information to record:
- Blood sugar
- ECG (to rule out arrhythmias)
- Developmental history
- Full neurological examination

5 questions to try and answer:
- Was the episode an epileptic seizure?
- What is the cause of the seizure?
- What investigations should I do?
- Does the child require treatment?
- What else should I think about?

First Aid information for the family: https://www.epilepsy.org.uk/info/firstaid/what-to-do

https://www.epilepsy.com/learn/about-epilepsy-basics/what-happens-during-seizure

Do I have epilepsy? https://www.epilepsy.com/learn/about-epilepsy-basics/what-seizure

Things to ask a paediatrician:
- Do I need to take any other blood tests? Think about low Ca2+ in a Vitamin D deficient population – the ionised result will be on the gas you took for the BM
- Does the child need imaging? If under 2 yrs of age, if focal onset or if residual neurology once woken up, probably. MRI better than CT.
- Does the child need an outpatient EEG? Probably not if first, generalised onset seizure. Depends a bit on clinical features. It is not a very sensitive or specific test and the decision to do one or not is best left to OPD review.
- How can I get the child reviewed within 2 weeks? NICE guidance for the UK is that all children with a first afebrile seizure need to see someone with epilepsy expertise within 2 weeks. Check out your local pathways for this.

HONEY v. AMOXICILLIN….

New NICE guideline: Cough (acute): antimicrobial prescribing (https://www.nice.org.uk/guidance/ng120), publ Feb 2019.
And yes, it does mention honey as an alternative for the over 1yr olds.

This new guideline is all about which antibiotics to use in children and adults with URTIs, the aim being to limit use and reduce resistance. 2 page visual summary of advice here.

- Acute coughs are self-limiting and may last up to 4 weeks
- Antibiotics rarely shorten the length of symptoms
- Cough is usually caused by a viral URTI such as a cold or 'flu
- Lower respiratory tract infections ("bronchitis" in adult medicine) can be viral or bacterial
- Treat systemically unwell children and those with a high risk of complications (review pre-existing co-morbidities)

Choice of antibiotic: children and young people under 18 years

Antibiotic[1]	Dosage and course length[2]
First choice	
Amoxicillin	1 to 11 months: 125 mg three times a day for 5 days 1 to 4 years: 250 mg three times a day for 5 days 5 to 17 years: 500 mg three times a day for 5 days
Alternative first choices[3]	
Clarithromycin	1 month to 11 years: Under 8 kg, 7.5 mg/kg twice a day for 5 days 8 to 11 kg, 62.5 mg twice a day for 5 days 12 to 19 kg, 125 mg twice a day for 5 days 20 to 29 kg, 187.5 mg twice a day for 5 days 30 to 40 kg, 250 mg twice a day for 5 days 12 to 17 years: 250 mg to 500 mg twice a day for 5 days
Erythromycin	1 month to 1 year: 125 mg four times a day or 250 mg twice a day for 5 days 2 to 7 years: 250 mg four times a day or 500 mg twice a day for 5 days 8 to 17 years: 250 mg to 500 mg four times a day or 500 mg to 1000 mg twice a day for 5 days
Doxycycline[4]	12 to 17 years: 200 mg on first day, then 100 mg once a day for 4 days (5-day course in total)

It seems that only 12 references are included in this all age group guideline. None of the studies looked at azithromycin which is a pity as, at only 1 dose per day for 3 days, compliance would be expected to be better in children. As always, NICE makes it clear that, whilst we are expected as clinicians to take this guideline fully into account, we should also consider the individual needs and preferences of the service users.