

Autumn Snippets ²⁰¹⁹

A #FOAMed production
by @DrLindaDykes
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Weird Renal Tubular conditions

Q - What do you do when a patient has unexplained $\downarrow K^+$ (but not $\downarrow Mg^{2+}$) and you're struggling to get your head round their bizarre biochemistry results?

A - Ask friendly local Clinical Biochemist & Renal Physician colleagues, who then enlighten you to the existence of **Gitelman** and **Bartter's** Syndromes which - naturally - you cannot recall ever having heard of before.

They're renal tubulopathies that result in salt-losing nephropathies.

Gitelman produces changes "resembling treatment with high-dose thiazide diuretics" and **Bartter** "resembles treatment with high-dose loop diuretics".

Typically, it's fiendishly difficult to get the K^+ up in these conditions, *even with K^+ supplementation*, and bicarbonate is usually raised.

Also consider **periodic hypokalaemic paralysis** (which is sometimes associated with thyrotoxicosis) in a patient with history of plummeting their K^+ but who quickly recovers without treatment, and bear in mind, "any investigation of hypokalaemia is not complete without excluding **Cushing's** and **Conn's**, however unlikely*".

Loperamide

Did you know that loperamide (which is, after all, an opioid) has potential to be a drug of abuse? Yup, "100 to 200 pills, often blended into a smoothie" is nicknamed "Poor Man's Methadone" in the USA. This is hazardous: death can occur immediately or days/weeks after ingestion, as QT prolongation carries a risk of Torsades and other ventricular arrhythmias, syncope, and sudden cardiac arrest.

However, patients with **short bowel syndrome** can be on very hefty doses (64mg/day) perfectly legitimately, which is enough to need regular ECGs. There was actually an MHRA alert about loperamide in 2017 but I doubt I am the only one who missed it at the time!

And whilst we're thinking about drugs...

- 1:100 people lack the enzyme required to metabolise **ecstasy**
- **Marijuana** can be a cause of **cyclical vomiting** that is resistant to treatment with conventional anti-emetics (may end up needing haloperidol) as well as **cardiac arrhythmias** and **psychiatric problems including psychosis**, especially if genetically vulnerable
- **Ketamine** is a cause of **serious bladder problems** in young people that may initially mimic UTI, but can end up with a massively reduced bladder capacity. You'll need to specifically enquire about drugs: your patient may not make the connection between their "UTIs" and street ketamine use.
- **Ethanol** can be taken powdered or in capsules, as well as PV (seriously - soak a tampon in alcohol...) or smoked/vaped. These are all very bad ideas.

Describing Pregnancies: TPAL

- Using gravida/para and keep forgetting which is which? **TPAL** is an alternative system that seems more intuitive.
- TPAL = Term births, Premature births, Abortions, and Living births.
- Wiki gives the example of "a woman who carried one pregnancy to term with a surviving infant; carried one pregnancy to 35 weeks with surviving twins; carried one pregnancy to 9 weeks as an ectopic (tubal) pregnancy; and has three living children would have a TPAL annotation of T1, P1, A1, L3. This could also be written as 1-1-1-3"