HKCEM – Tox Subcom
Case presentation
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Case presentation
- F/26
- Hx of soft drug abuse
- Found unresponsive in bed at 6 am
- Suicidal notes +
- With antiseptic bottle (half remained) in bedside
- Lt wrist superficial cut
- Had taken alcohol last night 12 MN – 2 AM

De-Ville

Vital signs
- GCS 3/15
- BP 104/70  P 97
- Pupils 3 mm reactive
- Limbs flaccid
- Vomitus: yellowish, smell of antiseptic
- ECG: SR, QRS 96 & QTc 463

How to manage?

AED Mx
- Intubated with RSI
- CXR normal
- Blood taken
- CT brain done at 07:32 → normal
- Admitted to ICU
- Initial blood result: K 3.2, otherwise NAD
- ABG: pH 7.339
  - HCO3: 19.7
  - BE: - 5.5

Any differential diagnoses?

ICU progress
- Given anexate 0.2 mg IV at 07:50
- → GTC seizure x a few minutes at 08:56
- Aborted by valium IV 10 mg
- Followed by IV dilantin

What happen ??
Withdrawal seizure due to BZD ?

Ix results
- Urine toxicology screen → unremarkable
  (barbiturates, opiates, cannabinoids, BZD all –ve)
- Blood x panadol, salicylate → undetectable,
  ethanol 9.3 (blood taken at 11 am)
Outcome

- Recovered & extubated at 14:36 same day
- Throat pain & epigastric pain
- OGD next morning ➔ mild sloughing off of oesophageal mucosa at 21 – 35 cm, small hiatus hernia
- Mx with zantac
- To med ward after 28 hrs in ICU
- Home on D3 after psychiatrist seen + FU

Summary

1. GI irritation after antiseptic ingestion
2. ? Withdrawal seizure due to chronic BZD or hypnotics use

De-Ville antiseptic solution

- Extensive internet search from Yahoo:
  - Search from DH: Registered Pharmaceuticals in HK:
    - No results found for Reg. No.: HK-24802
    - Other brand names with dichloroxyleneol: 11 types
    - All contain 2% dichloroxyleneol

De-Ville antiseptic

- Possible ingredients:
  - DCMX (2%)
  - Properties similar to Dettol®

Dettol®

- Ingredients:
  1. PCMX (4.8%)
  2. isopropyl alcohol
  3. pine oil
  4. castor oil soap
  5. caramel
  6. water

Complications of Dettol®

- Irritation to oral mucosa, & upper GI tract
- Upper airway obstruction
- Aspiration pneumonia, ARDS
- CNS depression
- Renal impairment in a small percentage

Related to gastric lavage

Serious complications associated with Dettol poisoning
CHAN et al. QJM 1993; 86: 735-738
Toxic potency of chlorinated phenols

- Potency ↑ with the number of chlorines
- Potency ↓ if the chlorines are attached in the ortho position

Comparative toxic potency ranking of chlorophenols W. E. Pepelko et al

DCMX & PCMX (chlorinated phenols)

- Physical properties:
  - colourless, weakly acidic

- Toxicity:
  - GI tract: irritation after ingestion
  - CNS: depression, coma,
  - Resp: aspiration

Mx for irritant antiseptic ingestion (chlorophenols)

- Supportive Mx
- Protect airway to prevent aspiration
- OGD: to assess extent of damage in upper GI tract
- H2 Blocker

Factors that can make an irritant → strong irritant or corrosive agent

- Concentration of the irritant:
  - E.g. conc. Dettol vs dilute Dettol

- Volume of ingestion:
  - E.g. 200 ml vs 20 ml

- Contact time with oesophageal mucosa
  - E.g. vomiting better than sedation

THANK YOU