PARAQUAT POISONING

PERSONAL RISK VS DUTY OF CARE

Fay Malcomson

September 2010

AMBULANCE REPORT

- Middle-aged male found in car seizuring, blue, frothing at mouth, cold & clammy
- 1626hrs: Ambulance arrived

  Shallow/noisy respirations, GCS 3

  Responding to painful stimuli
- Paraquat found in car → Poisons Centre contacted → advised nil O_2, Give activated charcoal

EMERGENCY DEPARTMENT

- Estimate taken – 200mls @ 135gm/litre
  27gm = 270mg/kg (100kg)
  (Lethal dose > 40mg/kg)

- Arrived 1707: HR 114 ST, BP 158/75, RR 28,
  SaO_2 94% in room air, GCS 12.

- 2nd 18g IV, NG tube + IDC inserted.

- 1845- agitated → intubated @ 1900hrs, sedated/paralysed

ED (cont)

- ABG showed severe metabolic acidosis-
  pH 7.25 HCO_3 5.6 BE 18.6
  pCO_2 13.2 pO_2 150 K+ 2.7

- IAL & Vascath inserted - CXR

- 1707-2015hrs:
  6 bottles of activated charcoal
  + 4.5L IV N/Saline & 500mls gelofusin
  IV KCL 40mmols

TRANSPORT TEAM ARRIVE

- 1955hrs: SIMV 16 x 800 @ 40 %.

  SaO_2 93% PERL 3mm
- Warm, vasodilated, skin decontaminated
- Urine output ↓ to 8mls/hr
- Handover, assessment, resecured ETT
- Tx to stretcher, attached to our monitors & transport ventilator.
- 2115hrs: Departed ED

INFLIGHT

- Depart pad 2135: 20min flight
- Difficulty ventilating, unable to be rectified → handbagged to achieve SaO_2 >90%
- Difficulty with patency of both IVs - blood back tracking

INFLIGHT (cont)

- Drop in MAPs → Multiple doses of Phenylephrine + IV colloid 500mls x 2

- Obs: HR 102 → 94, BP 128/52 → 100/44
  MAP 73 → 61 SaO_2 93 → 91%
  PERL 3mm


EXIT
FASTEN SEAT BELTS AND HARNESS - NO SMOKING
WAIKATO

RECEIVING ICU

- Arrived 2210hrs - HR 110, BP 160/80, SaO2 94%
- ↓ BP → Noradrenaline infusion commenced, further colloid, KCL
- Remained acidotic → IV HCO3-
- Methylprednisolone 1gm IV,
- Mannitol 20% 200mls NG
- Plan: Haemoperfusion with charcoal filter

INEVITABLE RESULT ?

- 0015hrs: sudden profound bradycardia, then hypotension unresponsive to high dose noradrenaline infusion and adrenaline bolus
- Death at 0020hrs
- Family in transit, notified by ICU Consultant
- Qualitative urine test confirmed Paraquat
- Coroners case

AN ETHICAL DILEMMA

Should we have transported him?

Is this safe / practical ?