PoweRx conference

A conference that is for us and by us

Roc in Reverse

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Disclosure

I have no financial disclosure or conflicts of interest with the presented material in this presentation

Objective

Recognize dose-related pharmacokinetic changes of rocuronium and the impact it may have on reversal

Introduction

Chart review

- 76 year old female GLF and GCS 7
- LKN 2000 last night
- Intubated
  - Etomidate and rocuronium
- Sedation
  - Propofol
    - Stopped after 13 minutes

GLF- ground level fall
GCS- glasgow coma scale
LKN- Last known normal

Labs

Chemistry	
CO_2	17
Anion gap	15
Glucose	166
BUN	81
SrCr	**9.8**
Mag	1.4
Phos	5.1
Direct bili	**2.9**
AST	117

Hematology	
WBC	19.6
Hgb	8.3 → 5.7
Platelets	48 → 32

Coags	
INR	1.2
TEG	
Max amplitude	33.8
LY30	0
R time	> 17
Rapid TEG max amplitude	59.2

Imaging

CT Brain

- Left holospheric, mixed density **subdural hematoma** with mixed hematocrit levels
- Moderate mass effect with **midline shift**
- Significant basilar cistern effacement and **uncal herniation**

11:40

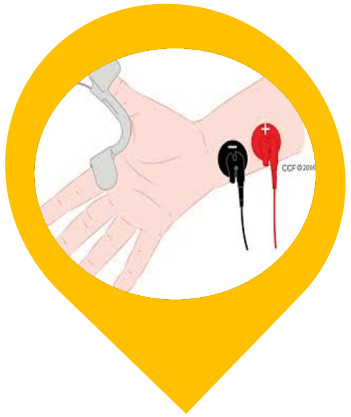
10:52

Rocuronium
150 mg

2 mg/kg

Poll

- Rocuronium should be worn off
- Reverse with neostigmine
- Train of four (TOF)



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Rocuronium 150 mg

2 mg/kg

12:13

Neostigmine 3.5 mg

80 min post roc

12:20

Neostigmine 3.5 mg + Atropine 0.5 mg

13:40

TOF 1/4

~ 3 hours post roc

Train-of-Four Response

Response	Approximate receptor blockade
Four twitch	0-75
Three twitch	75
Two twitch	80
One twitch	90
Twitches absent	100

https://www.anesthesiologyhub.com/nimbex/ICU/train-of-four.html

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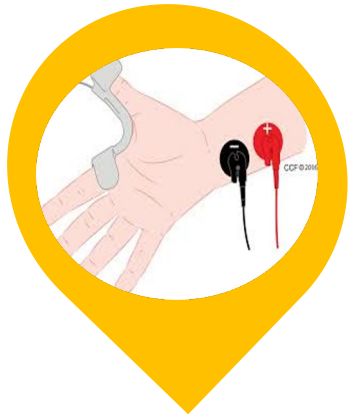

13:40

TOFR 1/4

15:30

TOFR 4/4

4 hours and 40 minutes!!

What did we learn?

- Supratherapeutic doses of rocuronium may increase the duration of action
  - Drug interactions
  - Drug metabolism
- Consider TOF monitoring before reversal
- Avoid neostigmine use in deep paralysis
  - Consider Sugammadex

Assessment Quesions

True or false: Giving rocuronium doses above the recommended dosing range can prolong the duration of action of the drug

A. True

B. False

In patients with deep paralysis from rocuronium (TOF 0/4), which drug should be given for immediate reversal?

A. Sugammadex

B. Neostigmine

Neostigmine is not effective for deep blockade. Sugammadex can be used at any point after paralysis and is effective in deep blockade.

QUESTIONS

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