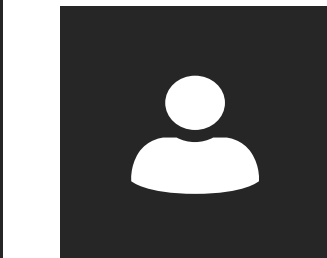




Title:

Paradoxical Failure of Sugammadex reversal
rescued by Neostigmine: A Case Report



PRESENTER:

Jake Rodriguez, OMS3

BACKGROUND: Sugammadex is considered the gold standard for rocuronium reversal. This provides an exemplary case of reversal failure. Clinicians need to retain proficiency with traditional AChE inhibitors as an encapsulation failure backup.

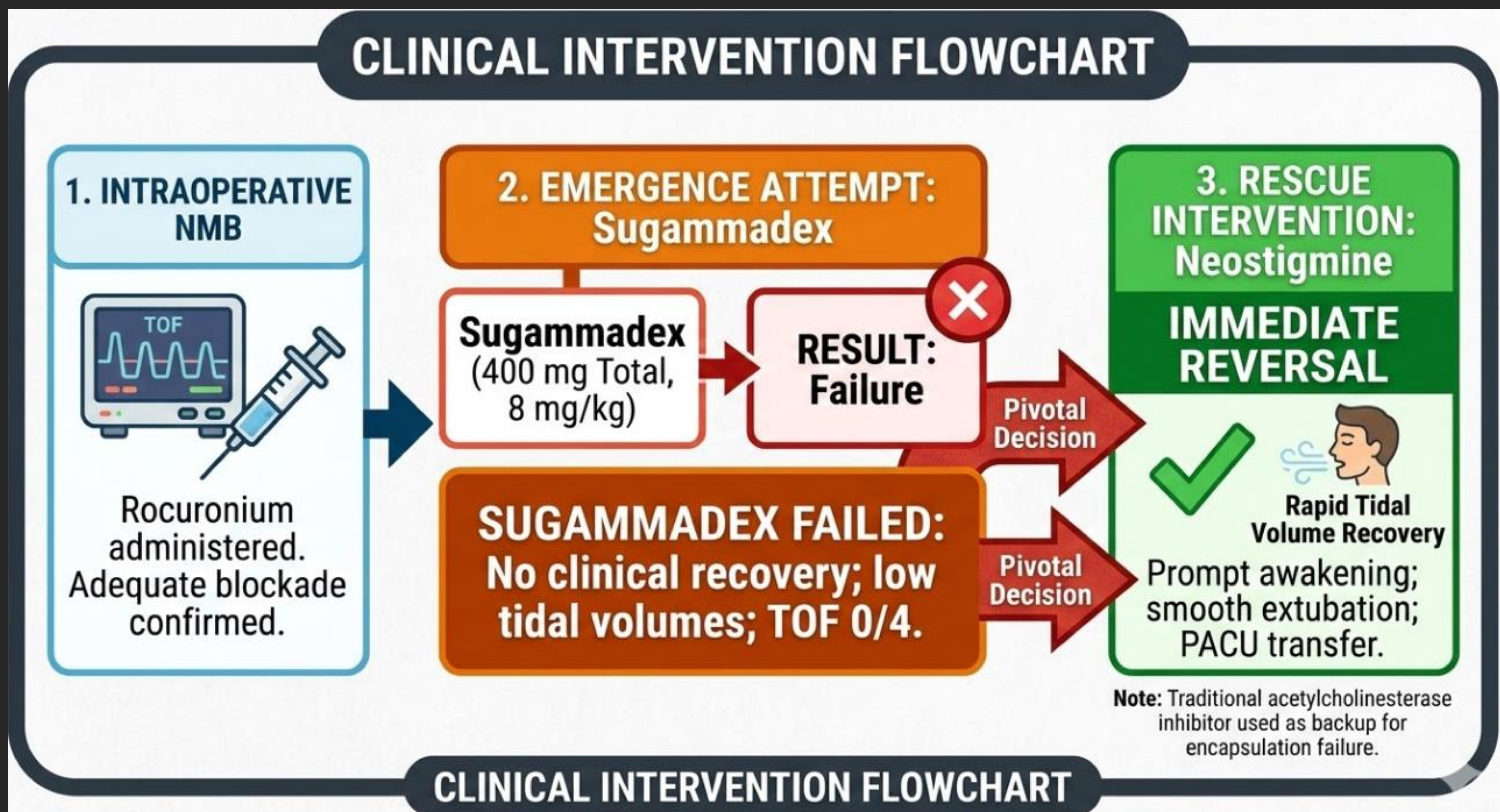
Case Description

- 41-year-old, 57.5 kg female w/ PMH significant for AS, Psoriatic Arthritis, SLE, CKD3b, Peripheral Neuropathy presents for a diagnostic laparoscopy for endometriosis under general anesthesia.
- Autoimmune/Rheumatologic Workup: Diagnosed prior to 2022, managed w/ Rinvoq and hydroxychloroquine; recent labs showing normal inflammatory markers [CRP, ESR].
- Patient intubation facilitated with rocuronium
- Monitoring was guided by standard quantitative TOF peripheral nerve stimulation.
- Sugammadex 200 mg administered intravenously. No clinical arousal or TOF improvement after five minutes.
- A second 200 mg dose of Sugammadex was administered. After a 20-minute observation period, the patient remained severely weak with a rapid respiratory rate and low tidal volume, despite a total dose of 400 mg (approximating 8 mg/kg).

RESULTS

- Suspecting Sugammadex failure, the team used traditional reversal using Neostigmine (5 mg) and glycopyrrolate (0.4 mg).
- Following administration, the patient spontaneously awoke and began breathing.
- Successfully extubated and transferred to the PACU with no signs of residual blockade. The success of neostigmine confirmed the neuromuscular junction was anatomically intact and receptive.

Sugammadex failed to reverse rocuronium-induced paralysis, but Neostigmine provided an immediate rescue.



Additional Information:

- Potential Mechanisms for failure:** Drug-Drug interactions displacing rocuronium, altered patient pharmacokinetics, NMJ transmission failure.
- No off-label or investigational drugs were used.
- Sugammadex & Neostigmine

