The Effect of Sugammadex Administration During Cesarean Delivery on Lactation Success in Term or Near-Term Pregnant Patients

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Background

- Sugammadex is widely accepted as a superior neuromuscular blockade reversal agent in the general population.
- Simulation-based modeling suggests that Sugammadex may bind to progestogen, potentially impacting breastfeeding.
- SOAP 2019 statement on Sugammadex at or near-term pregnancy: **AVOID OR USE WITH CAUTION**
- **The LATCH scoring system** assesses breastfeeding success; high LATCH scores (7-10) suggest a high median intake of breast milk.

Hypothesis:

We hypothesized that Sugammadex exposure during cesarean delivery would not negatively impact breastfeeding success as measured by LATCH scores

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Study Design

- Retrospective chart review
  - Single institution
  - January 2019 - January 2024
- **Primary Outcome: breastfeeding success measured by LATCH scores**
- Statistical Analysis: descriptive statistics and Chi-squared test

Inclusion Criteria:

- Pregnant women who underwent cesarean delivery with general anesthesia and received Sugammadex for neuromuscular blockade reversal

Exclusion criteria:

- Preterm delivery (<37 weeks)
- NICU admission
- History of diabetes or PCOS
- BMI >40 kg/m^2

Latch Score	0	1	2
(L) Latch	Poor latching, weak sucking	Needs stimulation to suck	Good latching, strong and rhythmical sucking
(A) Audible swallowing	No sound	Few times	Intermittent and frequent
(T) Type of nipple	Inverted	Flat	Everted/normal
(C) Comfort	Pain, cracked nipple, breast engorgement	Nipple blisters, reddened	No complaints
(H) Help/Holding	Full assist	Minimal assist	No assist

Results

15,000
~Cesarean deliveries between 2019 and 2024 at our institution
↓
63
Patients met inclusion criteria
↓
30
Patients had at least 1 LATCH score documented
↓
15
Patients analyzed after 15 patients were removed for exclusion criteria

Table 1a: Flow chart depicting study inclusion process

	Mean	Standard Deviation
Mean Gestational Age (days)	272	6.57
Mean LATCH	8.07	1.19
Age (years)	32.06	3.49
BMI (kg/m2)	30.84	4.21

Table 1b: Mean and standard deviation results for analyzed patients

- Of approximately 15,000 cesarean deliveries during data collection, **63 patients received Sugammadex** during cesarean delivery.
- **33 patients** were excluded because no LATCH score was documented.
- **Mean LATCH score: 8.07 (SD 1.19)**

Conclusions

- This is the first dataset describing lactation in patients exposed to Sugammadex at delivery
- A mean LATCH Score of 8.07 suggests that there is likely no adverse impact on breastfeeding success
- Only 1 patient did not achieve a LATCH score >7 during the postpartum course

Discussion

- Small sample size (15 patients included)
- Inconsistent documentation of LATCH scores
- Other factors could contribute to unsuccessful breastfeeding including general anesthesia and cesarean section

Future Directions

- Qualitative assessment of patients receiving Sugammadex during cesarean delivery
- Comparing LATCH scores for patients exposed to Sugammadex versus neostigmine/glycopyrrolate
- Larger, multicenter studies

Citations

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