

Anesthésie pour chirurgie non-obstétricale



Nonobstetric Surgery during Pregnancy

Jeanette R. Bauchat, MD, MS, Marc Van de Velde, MD, PhD, EDRA

On December 14, 2016, the U.S. Food and Drug Administration (FDA) issued a “Drug Safety Communication” warning that “...repeated or lengthy use of general anesthetic and sedation drugs during surgeries or procedures in children younger than 3 years or in pregnant women during their third trimester may affect the development of children’s brains.”¹²⁸ Because most repeated or lengthy procedures in pregnant women and in children younger than 3 years of age are urgent or necessary, and alternative anesthetic techniques are not feasible for many of these surgical procedures, the implications for anesthetic and surgical practice will primarily be to discuss the timing and the relative advantages and risks of different procedures.

Question



1. Femme enceinte qui nécessite chx 1^e trimestre, lequel est VRAI?

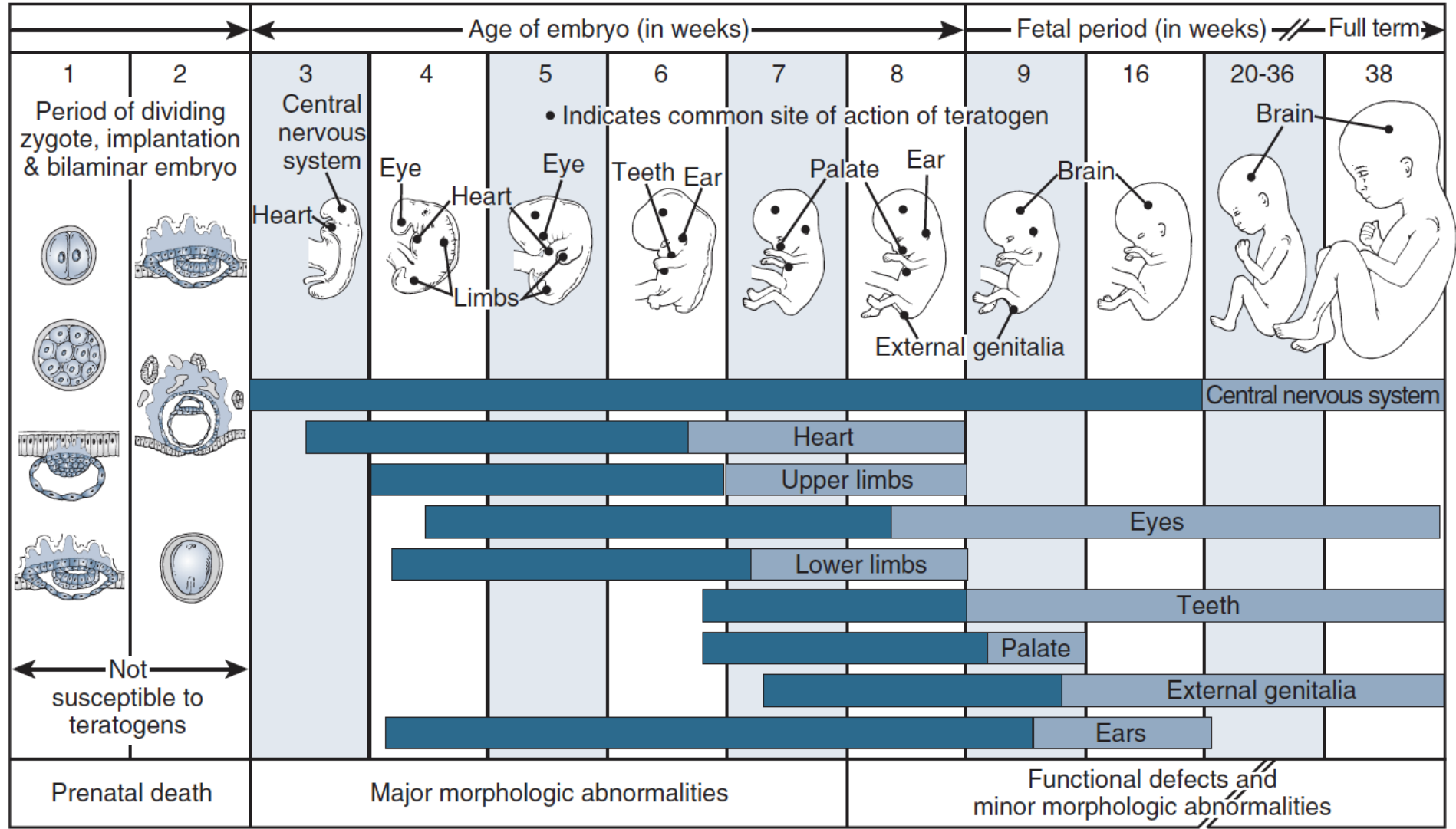
- a) Aucun médicament anesthésique est tératogène
- b) La chirurgie augmente le risque de fausse couche x 3
- c) TIVA est l'anesthésie de choix
- d) L'hyperventilation modérée maternelle est désirable

Question



1. Femme enceinte qui nécessite chx 1^e trimestre, lequel est VRAI?

- a) **Aucun médicament anesthésique est tératogène**
- b) La chirurgie augmente le risque de fausse couche x 3
- c) TIVA est l'anesthésie de choix
- d) L'hyperventilation modérée maternelle est désirable



Principes

- Incidence 0.5-1% de toutes les grossesses
- Pas de chx élective pendant la grossesse
- Si chx nécessaire, idéalement 2^e trimestre
 - 1^e trimestre: risque fausse couche
 - 3^e trimestre: risque travail préterme
- Pathologies abdominales difficiles à Dx
 - Appendicite, cholécystite, occlusion intestinale
- Laparoscopie est sécuritaire

Gestion anesthésique

- Privilégier la loco-régionale si possible
- Dégager compression aorto-cave
- Monitoring CF avant et après la chx
- IET à partir de 18-20 semaines
- Séquence rapide recommandé, mais questionné
- Éviter hypoxémie, hypoTA, acidose, hyperventilation

Médicaments

- La majorité des médicaments classés C
- Controversés:
 - Benzos
 - N₂O
- Néostigmine traverse placenta, pas le glycopyrrolate = risque de bradycardie foétale théorique

Sugammadex



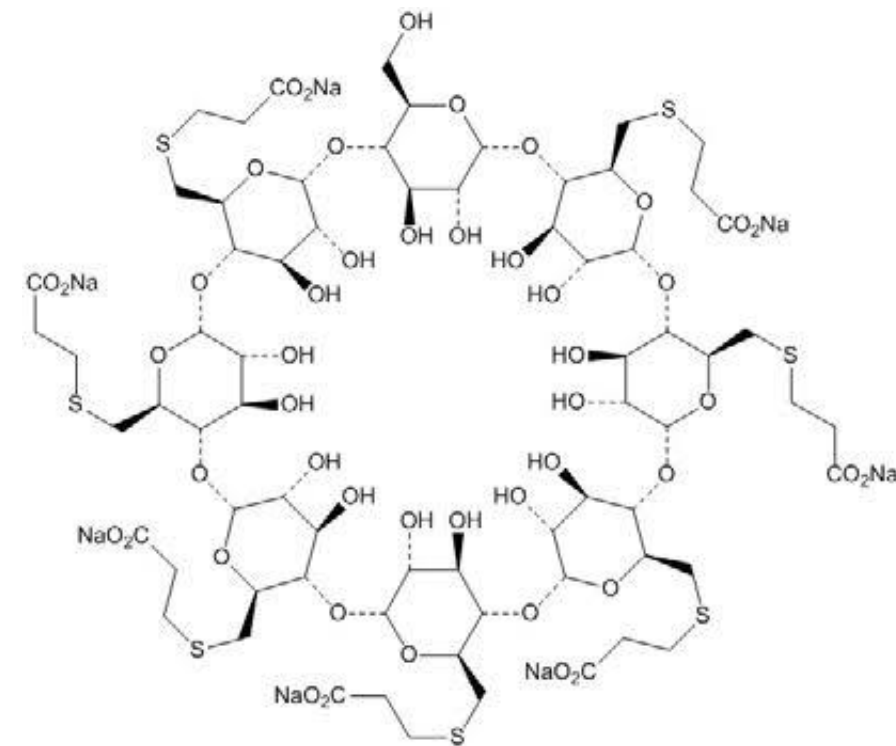
HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use BRIDION safely and effectively. See full prescribing information for BRIDION.

BRIDION® (sugammadex) Injection, for intravenous use
Initial U.S. Approval: 2015

-----INDICATIONS AND USAGE-----

BRIDION is indicated for the reversal of neuromuscular blockade induced by rocuronium bromide and vecuronium bromide in adults undergoing surgery. (1)



- Hormonal contraceptives: Patients using hormonal contraceptives must use an additional, non-hormonal method of contraception for the next 7 days following BRIDION administration. (5.6, 7.3)

Society for Obstetric Anesthesia and Perinatology

Statement on Sugammadex during pregnancy and lactation

Ad Hoc task force: Willett, Butwick, Togioka, Bensadigh, Hofer, Zakowski

April 22, 2019



PATIENTS IN EARLY PREGNANCY

AVOID

While the literature is insufficient to evaluate the safety of sugammadex during early gestation and fetal development, in vitro studies indicate that sugammadex binds to and encapsulates progesterone. Progesterone is critical for the maintenance of pregnancy, and until the clinical implications of this is known, we advise against the use of sugammadex in this population (see Section II—Use of sugammadex during pregnancy: current state of evidence).

Sugammadex administration in pregnant patients undergoing non-obstetric surgery: a case series

Sara Martins Torres  ^{a,*}, Duarte Filipe Duarte^a, Amélia Sousa Glória^a,
Cláudia Reis^a, Joana Filipa Moreira^a, Sara Cunha^b, Lino Lopes Gomes^a,
Caroline Dahlem  ^{a,c}

Brazilian Journal of Anesthesiology 2022;72(4):525–528

Sugammadex Administration in Pregnant Women: A Case Series of Maternal and Fetal Outcomes

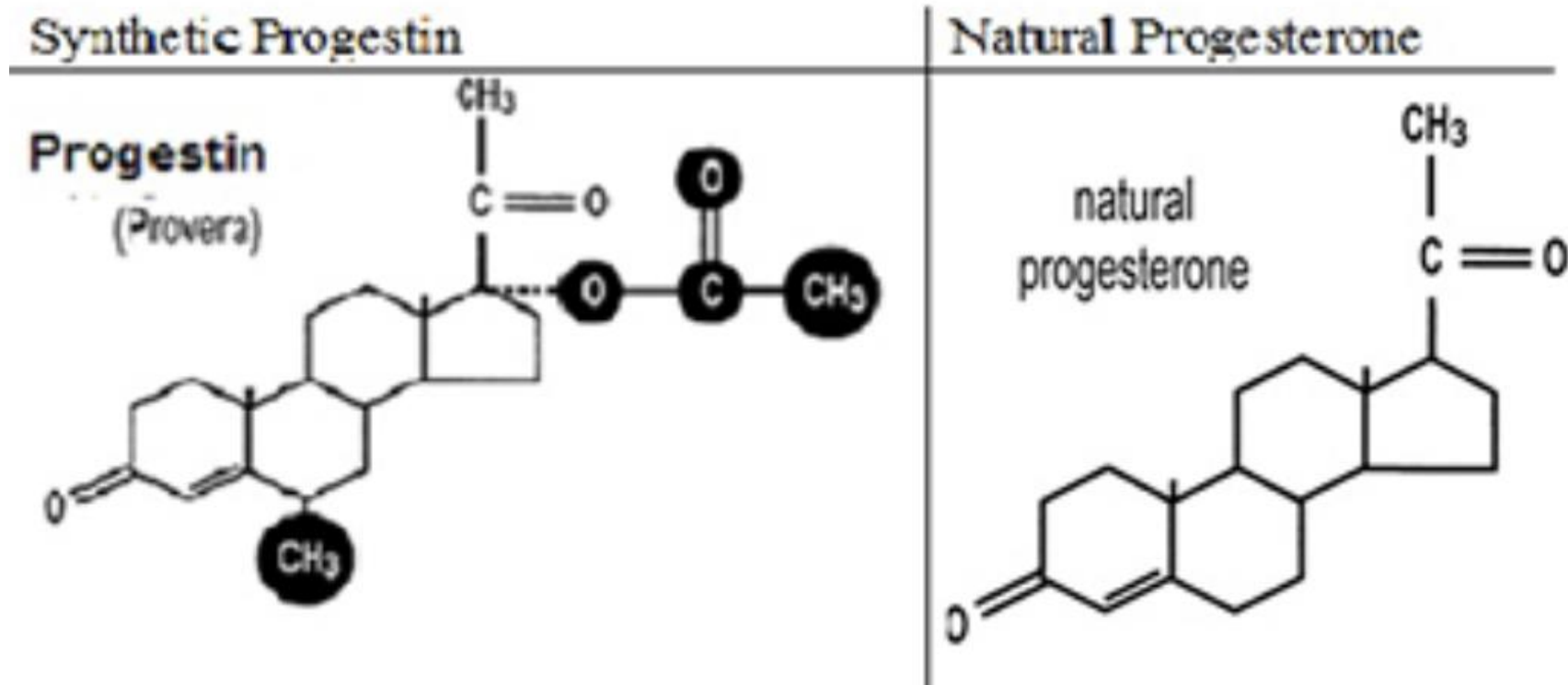
Shubhangi Singh, MD,*† Thomas T. Klumpner, MD,*† Carlo Pancaro, MD,*† Baskar Rajala, MD,*†
and Joanna A. Kountanis, MD,*†

A&A Practice 15(2):p e01407, February 2021.

Sugammadex Use for Reversal in Nonobstetric Surgery During Pregnancy: A Reexamination of the Evidence

Anesthesia & Analgesia 136(6):p 1217-1219, June 2023.

Ian N. Gaston, MD,* Elizabeth M. S. Lange, MD,† Jason R. Farrer, MD,* and Paloma Toledo, MD, MPH*‡



BOX 17.2 Maneuvers for Intrauterine Resuscitation during Nonobstetric Surgery

- Increase left uterine displacement
- Increase oxygen concentration
- Treat hypotension or administer vasopressor to return blood pressure to baseline
- Release surgical retraction, manipulation, or abdominal insufflation
- Ensure appropriate end-tidal CO₂ level^a
- Ensure appropriate acid-base status
- Check maternal hemoglobin
- Consider administering medications to improve uterine relaxation (e.g., increase volatile agent, nitroglycerin administration)

^a28–32 mm Hg

Post-op

- Analgésie multimodale
- Éviter AINS, surtout 1^e et 3^e trimestres
- Bas compressifs intra et post-op pour éviter TPP

Question



2. Femme enceinte à 24 semaines nécessite cholécystectomie urgente. Lequel est VRAI?

- a) Pas de risque d'aspiration à ce stade
- b) Compression aorto-cave n'est pas un risque ad 3^e trimestre
- c) N₂O est un tératogène prouvé et doit être évité
- d) L'hyperoxie maternelle n'est pas une cause de fibroplasie rétinienne in utéro
- e) L'halothane diminue l'incidence de travail préterme

Question



2. Femme enceinte à 24 semaines nécessite cholécystectomie urgente. Lequel est VRAI?

- a) Pas de risque d'aspiration à ce stade
- b) Compression aorto-cave n'est pas un risque ad 3^e trimestre
- c) N₂O est un tératogène prouvé et doit être évité
- d) L'hyperoxie maternelle n'est pas une cause de fibroplasie rétinienne in utéro**
- e) L'halothane diminue l'incidence de travail préterme

Conclusion

- Chirurgie non-obstétricale chez la femme enceinte est sécuritaire
- Précautions doivent être prises pour gérer les considérations de la femme enceinte
- Peu de changements dans le choix des médicaments à cause de la grossesse

Questions? Commentaires

YOU WILL HAVE THE CRAZIEST CRAVINGS

