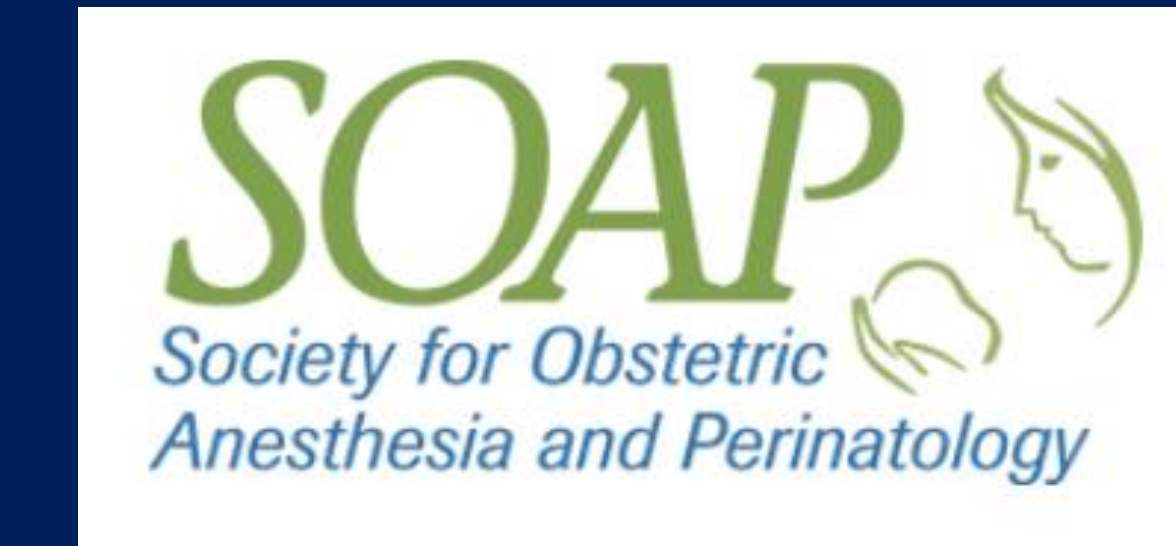


Case Report: Anesthesia and Peripartum Management of Alpha Gal Syndrome In Pregnancy



Adam Dunmore, C. Tyler Smith, Grace Lim
University of Pittsburgh Medical Center Magee-Womens Hospital



- Alpha-gal Allergy or Alpha-gal Syndrome (AGS) is an acquired allergy caused by a bite from the lone star tick
- It results in an IgE mediated reaction to the oligosaccharide galactose- α -1,3-galactose (α -Gal) which is expressed in the meat and tissues of mammals
- The IgE mediated reactions seen in AGS requires previous exposure to the lone star tick in order to occur
- AGS introduces significant challenges to the anesthesiologist who will need to provide a detailed, 'mammalian-less' anesthetic and to manage perioperative medication plans
- We report a 47-year-old G1P0 female presented for prenatal anesthesia clinic with past medical history of AGS, mast cell activation syndrome, chronic lyme disease, moderate asthma, and chronic pain

- All conceivable medications used in obstetric and anesthesia care, post delivery care, and operative delivery care, including multiple formulations of each drug, were individually assessed by the pharmacy team to determine if they contained mammalian products.
- An induction of labor was scheduled to minimize risks of emergent delivery. Multidisciplinary teams reviewed her plan every 12 hours at team safety rounds
- Epinephrine, diphenhydramine, and hydrocortisone were available at bedside always
- She requested epidural labor analgesia which was initiated using pre-specified pharmacy formulated medications including ropivacaine 0.1% + 2mcg/mL fentanyl
- She had a successful spontaneous vaginal delivery without evidence of allergic reaction during labor and delivery. Postpartum course was uncomplicated, and she was discharged on day 2 in stable condition with routine postpartum follow-up.
- Patients with a history of AGS should have anesthesiology and pharmacy consultation and full review of medications which may contain mammalian product prior to the onset of spontaneous labor

Drug	Manufacturer	Compound
Fentanyl 400 mcg/200mL Ropivacaine 0.1% 200mg	QuVa	Cannot determine
Propofol - DIPRIVAN® brand [200mg/20mL]	Fresenius Kabi	Glycerin
HYDROMorphone 1 mg/mL	Hospira	Sodium lactate lactic acid
HYDROMorphone 2 mg/mL	Hospira	Sodium lactate lactic acid
HYDROMorphone 0.5 mg/ 0.5 mL	Hospira	Sodium lactate lactic acid
Acetaminophen tabs Tylenol® 500mg and 325mg	Johnson & Johnson	Magnesium stearate
Acetaminophen injection 100mg/100mL	Leucadia	Cysteine hydrochloride
Clonazepam 1mg tablet	TEVA/ American Health Packaging	Lactic acid; magnesium stearate
Diphenhydramine 25mg po 50mg po capsule	Major Pharmaceuticals	Gelatin
Famotidine tablet 20 mg	Carlsbad Technology/McKesson	Magnesium stearate
Haloperidol injection 5 mg per mL	APP FRESENIUS KABI	Lactic acid
Hydrocortisone cream 1%	Perrigo	Glycerin; isopropyl myristate
Metoprolol tartrate tablet 25mg	Mylan	Anhydrous lactose; magnesium stearate
Montelukast 10mg	American Health Packaging	Lactose; magnesium stearate
Oxycodone 5mg tablet	Major	Lactose
Oxycodone 5mg tablet	Rhodes	Lactose, magnesium stearate
Prednisone 10mg tablet	Westward/Hikma	Lactose, magnesium stearate, stearic acid
Prenatal Vitamin	Patrin	Magnesium stearate
Prochlorperazine tablet 5 mg	Jubilant Cadista Pharmaceuticals	Magnesium stearate
Quetiapine tablet 100 mg	Northstar	Magnesium stearate, lactose
Ibuprofen tablet, 600mg	Marksans	Magnesium stearate
Methylprednisolone sodium succinate 40 mg per 1 mL 1 mL Act-O-Vial	Pfizer/ Pharmacia & Upjohn	lactose
Ibuprofen tablet, 600mg	American Health Packaging	Magnesium stearate