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**Galcanezumab-Induced Anaphylaxis: A Case Report**

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Galcanezumab induced anaphylaxis: a case report

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Monoclonal Antibodies & Anaphylaxis

Allergen

Skin/Mucosa
Respiratory
Hypotension
Gastrointestinal
End-organ

PMID: 16461139, 27406968
Anaphylaxis Management

- **Epinephrine**
  - First line treatment (NIAID, FAAN – 2006)
  - Adrenergic receptors affected by anaphylaxis (Simons et al. 2010)
  - In vivo B2 activation in basophils/mast cells (Kaliner et al. 1974)

- **Antihistamines**
- **Steroids**
Galcanezumab

- Humanized mAb, binds to calcitonin gene-related peptide (CGRP) ligand and blocks its binding to the receptor.
- Preventive treatment of episodic or chronic migraine (FDA, 2018)
- Three multicenter, randomized, double-blind, placebo-controlled studies
- 240 mg SC loading dose, then 120 mg/month
- Side effects: site reactions, nasopharyngitis, and nausea
Case Report

47F hx asthma, anaphylaxis.
CC: Shortness of breath, generalized pruritus, flushing, throat and mouth swelling 20min after self-administration of Galcanezumab (120mg x2 SC)

Diphenhydramine 100 mg PO
Epinephrine 0.3 mg IM x2
Albuterol/ipratrop. nebulization

Emergency Room:
HR: 122 bpm, RR: 28 rpm
On distress, stridor, decreased breath sounds B/L
Normal Imaging
Mild leukocytosis/no shift

Albuterol/ipratropium q4h
Methylprednisolone 1mg/kg
Famotidine 20mg IV BID

18h post intubation
✓ Hemodynamically stable
✓ Minimal sedation
✓ SBT passed
✓ Methylprednisolone 2mg/kg
✓ Albuterol/IPratropium inh. q4h
✓ Famotidine 40mg IV BID

1h post extubation
7:05pm
- RR >30rpm
- Wheezing/Stridor
- Epinephrine IM X3
- Same dose steroids
- Albuterol/IPratropium nebs
- Racemic epinephrine nebs

7:25pm
- RR >30rpm
- Wheezing/Stridor
- Same dose steroids
- Albuterol/IPratropium nebs
- Racemic epinephrine nebs
Overview

Case Report

Discussion

Summary

DIFFERENTIAL

- Angioedema
- Asthma
- Urticaria
- Foreign body
- Pulmonary embolism
- Vocal chord dysfunction
- Panic attack
- Anxiety

~27 days

• Basiliximab
• Natalizumab
• Rituximab

PMID: 21853842, 11136200, 17963462, 19188571, 23432476, 23713740; FDA ID: 4443531