RESURRECTION EMERGENCY MEDICINE

FOAM & Education Newsletter

February 2021
Volume #6

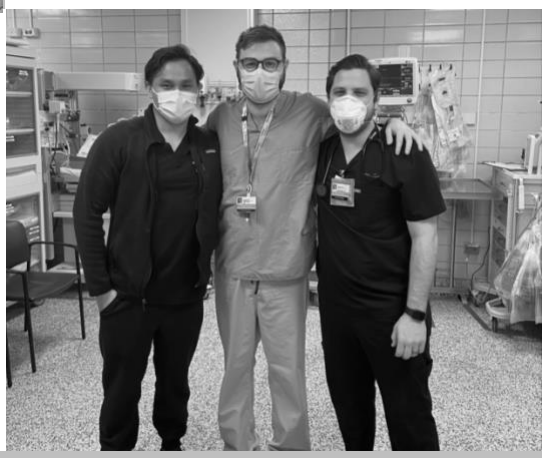
Welcome to Rez's #FOAM Newsletter

This is a monthly newsletter brought to you by the Education Committee with the latest in the EM & FOAMed world, ranging from trials, news and pearls. We will also share with you the best podcasts & blog posts recently published in FOAM. If you have an interest in contributing or sharing interesting images or EKGs, let us know!

Your 20-21 Education Committee
Walid Malki
Jon Reid
Lola Reingold
TJ Stolz
Yalan Vu

COVID Update:
How helpful is Bamlanivimab?

Airway Update:
Ketamine only intubations



October FOAM Highlights

Podcast of The Month:
EM Cases: Quick Hits 25 (CVT, Diphenhydramine alternatives, Abdominal Compartment Syndrome, Intubating Metabolic Acidosis)

Blog Post of The Month:
EMDocs: Syncope in the ED: Who can go home?

Procedure of The Month:
EM:RAP: Trephination of Fingernail Subungual Hematoma

COVID Update: BLAZE-1 Final Publication: Monoclonal Antibody Cocktail Part II

Bottom Line: There is no evidence to suggest that monoclonal antibodies and antibody cocktails lead to improved clinical outcomes in patients with SARS-CoV2 infection. They should only be used in clinical trials at this time.

Goal: What is the effect of bamlanivimab monotherapy and in combination with etesevimab on viral load in patients with mild to moderate COVID19?
Who: Adults >18yo with a confirmed COVID infection, had 1 or more mild to moderate symptoms and presented within 3 days of their first positive test result. 592 patients (average age 44.7) were randomized to one of 5 arms, 577 patients received an infusion, 44 were lost to follow up. 67.1 % had > 1 risk factor for severe COVID (age > 55 years, BMI > 30 or > one comorbidity).
Results: Among non-hospitalized patients with mild to moderate COVID-19 illness, treatment with bamlanivimab and etesevimab, compared with placebo, was associated with a statistically significant reduction in SARS-CoV-2 viral load at day 11 (– 0.57 with 95% CI -1.00 to -0.14); no significant difference in viral load reduction was observed for bamlanivimab monotherapy. There was a statistically significant decrease in hospitalizations with combination therapy vs placebo (0.9% vs 5.8%), however study lumps hospitalization, ED visits & death at day 29 as their primary clinical outcome without differentiating between them.

Paper Review: Success and Complications of the Ketamine-Only Intubation Method in the Emergency Department by Lola

- **Data from the National Emergency Airway Registry, an international registry, from 2016-2018**
- **12,511 intubations reviewed; only 80 were ketamine-only (KO) intubations.**
- **75% of those intubations were considered "difficult airway"; video laryngoscopy used in 59%**
- **First-pass success was 61% in KO vs 90% in RSI; 53% vs 84% in "difficult airways".**
- **One or more adverse events occurred in 32% of KO attempts; in 58% of KO first-pass failures, a paralytic was added to facilitate second-pass.**
- **Given the extremely small number of KO intubations, it is difficult to extrapolate the true risks or benefits of this approach.**

For more – check out EMCRIT podcast episode 289

Article: Driver, B. E., Prekker, M. E., Reardon, R. F., Sandefur, B. J., April, M. D., Walls, R. M., & Brown, C. A. (2020). Success and Complications of the Ketamine-Only Intubation Method in the Emergency Department. Journal of Emergency Medicine, (July), 1–8. https://doi.org/10.1016/j.jemermed.2020.10.042

ACEP Now: Cannabinoid Hyperemesis Treatment by Lola

- Until recently, the best available evidence for treatment of Cannabinoid Hyperemesis Syndrome (CHS) was a retrospective study of patients who received droperidol. Patients who received droperidol had a shorter length of stay (6.7 hours versus 13.9 hours). However, there were no RCTs on haldol use in CHS.
- Ruberto et al performed a small RCT: 13 pts got IV haldol and 17 got IV Zofran.
- **One-dose haldol reduced a patient's self-reported nausea and pain more than Zofran.**
- **"Low-dose" haldol was > 2.5 mg IV**; high-dose (approximately 0.1mg/kg) was associated with more adverse effects including dystonic reactions.
- Capsaicin also showed additional reduction in nausea and pain at one hour after administration.

Article: Ruberto AJ, Sivilotti MLA, Forrester S, et al. **Intravenous haloperidol versus ondansetron for cannabis hyperemesis syndrome (HaVOC): a randomized, controlled trial**. *Ann Emerg Med.* 2020;S0196-0644(20)30666-1.

TXA use in Epistaxis: Infographic from FOAMCast Podcast reviewing the RCT NoPAC trial in Annals of EM by Reuben et al.

TRANEXAMIC ACID IN EPISTAXIS

the medication

synthetic lysine analog that inhibits fibrinolysis (clot breakdown).

literature summary

Tibbelin et al. ORL 1995; 57:207-209
randomized, double-blind trial, 68 clinic patients with ongoing nosebleed
TXA gel (15 mL) vs placebo gel
Bleeding stopped within 30 min TXA 60% vs Placebo 76%
Rebleeding within 8 days 11% vs 31%

Zahed et al. Am J Emerg Med. 2013
randomized, unblinded trial, 216 ED patients with anterior epistaxis
Primary outcome: cessation of bleeding in 10 min: TXA 71% vs 31% packing

Atabaki et al. Nurs Midwifery J 2017; 15(7) 488-496
randomized trial, in 120 ED patients on antiplatelet agent
pledget soaked in phenylephrine vs pledget with 100 mg TXA (1mL)
Primary outcome: cessation of bleeding in 10 min: TXA 66.7% vs 28.3% packing

Zahed et al. Acad Emerg Med. 2017
randomized, unblinded trial in 124 ED patients on antiplatelet agent
pledget soaked in lidocaine + epinephrine then packing vs TXA pledget
Primary outcome: cessation of bleeding in 10 min: TXA 73% vs 29% packing

Amini Arch Acad Emerg Med. 2021;9(1)e6.
double-blind RCT
pledget soaked in lidocaine + phenylephrine vs TXA pledget 500 mg (5 mL)
Secondary outcomes: Successful bleeding control TXA 94% vs phenylephrine 80%
Rebleeding in 72 h TXA 6% vs phenylephrine 20%

Akkan et al. Ann Emerg Med. 2019
randomized, single center trial in 135 patients with anterior epistaxis
500 mg (5mL) atomized TXA + compression x 15 min, vs compression with saline x 15 min, vs merocel packing with 2% lidocaine x 24 hours
Primary Outcome, Cessation of epistaxis ≤15 min: TXA 91%, Saline 71%, Packing 93%

Whitworth. J Emerg Med 2020
prospective, single-blind study (odd/even day allocation) in 38 ED patients
oxymetolazine 3 sprays vs TXA 300 mg (3mL) atomized
TXA 78% vs oxymetolazaine 35%

Reuben et al. Ann Emerg Med. 2021; In Press
placebo-soaked pledget vs TXA soaked pledget x 10 min (x 2 if needed)
in 496 ED patients (~65% on anticoagulant) with epistaxis after vasoconstrictor and pressure x 10 min
Primary outcome: need for nasal packing: TXA 43.7% vs 41.3%

bottom line

although many of the studies demonstrate a benefit to TXA, these studies include unblinded and single-centered studies with a variety of comparators. the largest RCT demonstrates no clear added benefit after vasoconstrictor and local therapy

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TXA IN EPISTAXIS

Reuben et al. Ann Emerg Med. 2021

the study design

randomized, double-blind placebo controlled trial

the population

496 ED patients with epistaxis after 10 minutes of local therapy
↓
vasoconstrictor (clinician discretion, phenylephrine common) on dental roll x 10 minutes with nasal clip
~70 years old
64.7% on anticoagulants
BP ~150/85 mmHg

the intervention

TXA 200 mg (2mL) on dental roll x 10 min with nasal clip
↓ still bleeding
TXA 200 mg (2mL) on dental roll x 10 min with nasal clip

the comparator

Sterile water (2mL) on dental roll x 10 min with nasal clip
↓ still bleeding
Sterile water (2mL) on dental roll x 10 min with nasal clip

the results

use of anterior nasal packing during initial ED visit (primary endpoint)
TXA 43.7% vs Placebo 41.3%
OR 1.11 (95% CI 0.77-1.59)

hospital admission
TXA 45.5% vs Placebo 43.3%
OR 0.92 (95% CI 0.64-1.32)

recurrent epistaxis
TXA 16.1% vs Placebo 19.4%
OR 1.26 (95% CI 0.79-2.0)

length of hospital stay
2 vs 2.2 days

limitations

practice pattern in the UK (choice of vasoconstrictor, apparently largely phenylephrine) as well as 45% hospital admission rate
only 19% of those screened were randomized (many stopped bleeding after vasoconstrictor administration)

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