



FOAM & Education Newsletter

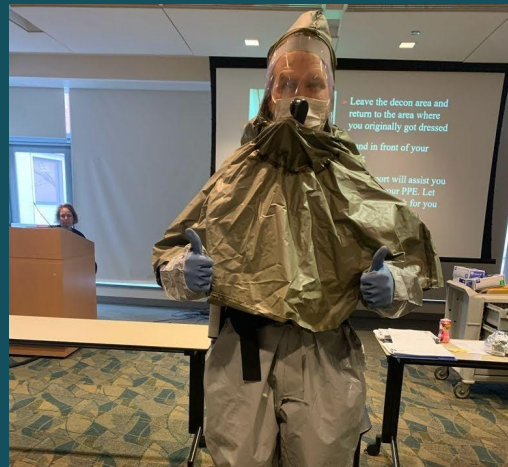
June 2021
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Welcome to Rez's #FOAM Newsletter

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

Your 21-22 Education Committee:
Lola Reingold (chair)
Walid Malki
Colton Weisner
Jake Cihla
Yalan Vu
Will Noel



We're back!

We thank you for your patience. Our month off allowed us to improve our structure and format, and come back refreshed for a new academic year!

MAY FOAM UPDATES:

PODCAST OF THE MONTH:
"Sudden Death" CT Scans

POCUS OF THE MONTH:
Achilles Tendon Rupture

PROCEDURE OF THE MONTH:
SPG Block

Research Quick Hits:

- Waxman et al, *Academic Emergency Medicine*: when supply of vaccines has stabilized, **EDs should position themselves to provide COVID vaccinations** to those who otherwise don't frequently interact with the healthcare system
- Scarpa & Wu, *Regional Anesthesia & Pain Medicine*: regional anesthesia may be the way of the future(istic), because **conventional anesthesia will be challenging if not impossible in space**
- Musi et al, *Resuscitation: the International Commission for Mountain Emergency Medicine* proposes a revised **Swiss scale to clinically stage hypothermia** using GCS instead of other clinical signs to estimate risk of hypothermic cardiac arrest (see below)

Table 1 – Summary of the two main clinical staging systems for accidental hypothermia: the original Swiss system¹¹ and the Wilderness Medical Society classification.² WMS - Wilderness Medical Society.

Swiss system ¹¹			WMS ²		
Category	Clinical findings	Estimated core temperature (°C)	Category	Clinical findings	Estimated core temperature (°C)
Stage 1	Clear consciousness with shivering	35–32	Mild	Normal mental status, shivering, but not functioning normally and unable to care for self	35–32
Stage 2	Impaired consciousness without shivering	<32–28	Moderate	Abnormal mental status with shivering, or abnormal mental status without shivering, but conscious	32–28
Stage 3	Unconsciousness	<28–24	Severe/profound	Unconscious	<28
Stage 4	Apparent death	24–13.7			
Stage 5	Death due to irreversible hypothermia	<13.7? (<9?)			

	Stage 1	Stage 2	Stage 3	Stage 4
Clinical findings^a	“Alert” from AVPU	“Verbal” from AVPU	“Painful” or “Unconscious” from AVPU AND Vital signs present	“Unconscious” from AVPU AND No detectable vital signs ^b
Risk of cardiac arrest^c	Low	Moderate	High	Hypothermic cardiac arrest

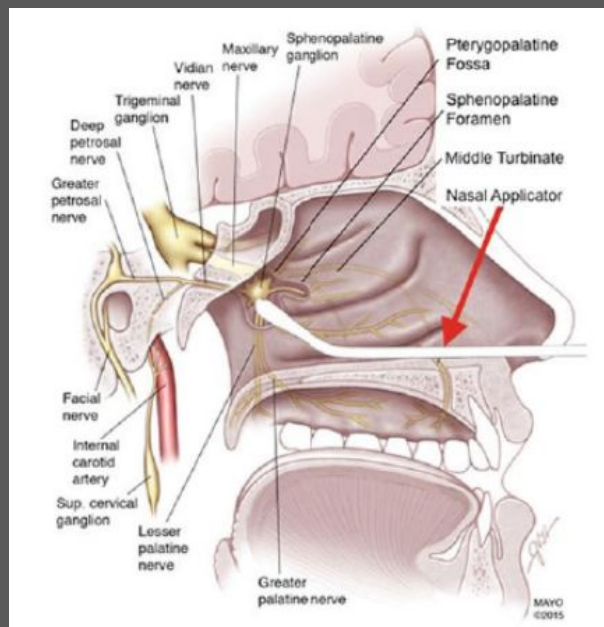
PROCEDURE: Sphenopalatine ganglion block

From: ACEP Now

For: Migraine

How:

- Patient should be in the supine position; can pre-treat nasal passage with 1% aerosolized lidocaine via atomizer
- Soak cotton swab in 1% lidocaine; advance along middle turbinate until there is resistance (see figure)
- Leave for 10 minutes, or until pt reports relief



Considerations:

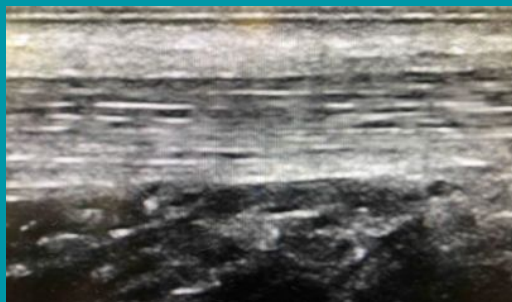
- Warn pts about bitter taste, chance of mucosal trauma, nausea, numbness in the oropharynx
- Consider placing pt on a cardiac monitor
- As always, calculate maximum safe anesthetic dose
- Limited data in children

POCUS Confirmation of Achilles Tendon Rupture

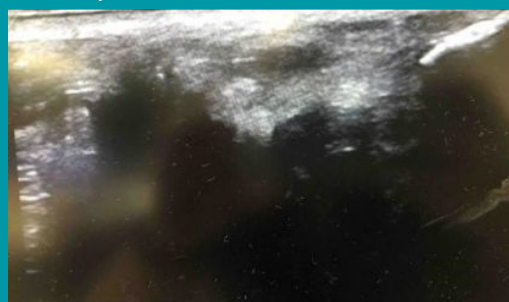
Ultrasound is sensitive & specific for diagnosing most tendon tears, is faster and cheaper than MRI and augments clinical exam in differentiating between partial & full thickness tears¹. Use of handheld ultrasonography in the field at a sporting event can also quickly confirm diagnosis.

Performing the exam is simple: With the patient prone, place the probe with the indicator toward the patient's head and slide superiorly and inferiorly to examine the tendon in long axis, all the way down to its insertion to the calcaneus, assessing for defects in the fibrous structure

Normal R Achilles tendon



Ruptured L Achilles Tendon



FOAMcast presents:

Panscan for Out-of-Hospital Cardiac Arrest

Format: prospective observational

Population: OHCA survivors without obvious cause of their arrest

Intervention: the “**Sudden Death**” panscan, consisting of

- Non-con head CT
- Triple-phase, gated thoracic CT
- CT abdomen with contrast

Outcomes: diagnosable causes of arrest, and time-critical diagnoses
In 39% of scanned patients, a cause of OHCA was found. Additionally, CT was excellent at detecting time-critical diagnoses including iatrogenic ones such as lung lacerations from CPR.

Verdict: **not ready for prime time**. Many injuries could have been detected by other means; additionally, this study did not examine whether the extra data changed management OR patient outcomes.

Further Reading

SPG blocks:

- Viguri, A., & Perez, Y. P. (2016). Migraine Care : Why and How to Block the Sphenopalatine Ganglion Nerve. Retrieved June 28, 2021, from <https://www.acepnow.com/article/migraine-care-why-and-how-to-block-the-sphenopalatine-ganglion-nerve/>
- Haywood, M., Mecham, C., Rastogi, R., Mirea, L., & Bulloch, B. (2021). Early Utilization of SPG Block for the Treatment of Acute Migraine Headache in the Pediatric Emergency Department (4829). *Neurology*, 96(15 Supplement).

Achilles Tendon Rupture:

- Hodgson, R., O’Conner, P. and Grainger, A. (2012) Tendon and Ligament Imaging. *The British Journal of Radiology*, 85, 1157-1172.

Featured Research:

- Musi, M. E., Sheets, A., Zafren, K., Brugger, H., Paal, P., Hölzl, N., & Pasquier, M. (2021). Clinical staging of accidental hypothermia: The Revised Swiss System: Recommendation of the International Commission for Mountain Emergency Medicine (ICAR MedCom). *Resuscitation*, 162(February), 182–187.
- Scarpa, J., & Wu, C. L. (2021). The role for regional anesthesia in medical emergencies during deep space flight. *Regional Anesthesia & Pain Medicine*, 0(0), rapm-2021-102710.
- Waxman, M. J., Moschella, P., Duber, H. C., Martin, D. R., Benzoni DO, T., Rothman, R. E., & Schechter-Perkins, E. M. (2021). Emergency Department-Based COVID-19 Vaccination: Where Do We Stand? *Academic Emergency Medicine : Official Journal of the Society for Academic Emergency Medicine*.

Podcast:

- foamcast.org
- Branch, K. R. H., Strote, J., Gunn, M., Maynard, C., Kudenchuk, P. J., Brusen, R., ... Gatewood, M. O. (2021). Early head-to-pelvis computed tomography in out-of-hospital circulatory arrest without obvious etiology. *Academic Emergency Medicine*, 28(4), 394–403.