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Rage against Renal Colic: Keep the Ketorolac, Maybe Morphine, Leave the Lido for Last



BY DAN RUNDE, MD

You see a patient who is diaphoretic, vomiting, and in obvious agony. STEMI? Dissection? Some other type of vascular catastrophe in progress? It very well could be, but if your clinical experience has been anything like mine, this kind of patient is much more likely to be passing a kidney stone. A good history and less than two minutes with a bedside ultrasound are usually all we need to confirm this diagnosis. Special thanks to Rebecca Smith-Bindman, MD, for

driving this practice change. (*N Engl J Med* 2014;371[12]:1100.)

Now the biggest question we face: How do we take this patient from miserable to manageable in the safest, shortest amount of time?

The good news is unlike many of the clinical questions we face on a daily basis (where we are forced to rely on anecdotal evidence and the signs read in sheep livers and chicken entrails), kidney stones are something that we have actually studied quite a bit. The bad news is

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TXA Superior to Packing for Epistaxis, and Patients Like It Better

BY DUSTIN BALLARD, MD, & DAVID VINSON, MD

The patient was turning all shades of pale on his way to reverse Trendelenburg. From seashell, to ivory, to baby powder, to

ghost. Our interaction had started innocently enough. Mr. E. said he had taken a few Motrin on top of his daily baby aspirin for a tight back. It began a bit later, he recounted, when he bent over to tie his shoe.

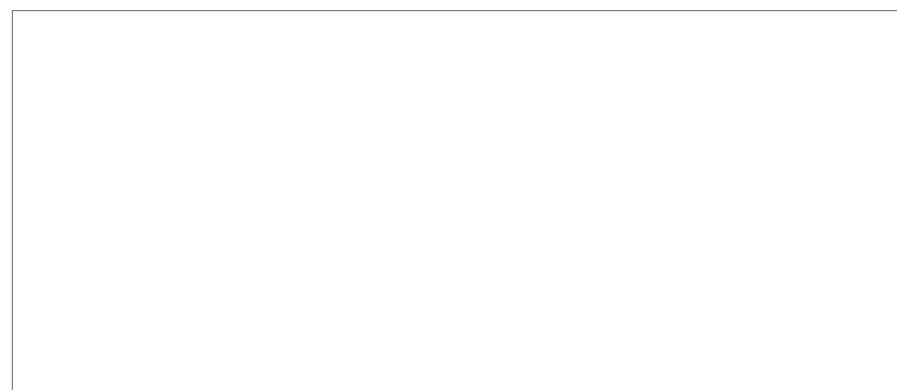
When I (Dr. Ballard) first laid eyes on him, I saw a gentle crimson rivulet meandering from the left nare into his whiskers, like a mustachioed Eleven from *Stranger Things*. The patient was attempting



compression, pinching his nose rather than his vasculature. A blue foam clip was perched precariously on the tip of his nasal bridge, securely compressing superficial skin and tissues. "Ah, a quick fix," I thought while aerosolizing Afrin and lido into his nasopharynx.

Before I could leave the room, however, the initial treatment triggered a staccato of coughing, and Mr. E.'s bleeding

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Getting Punk'd: A New Liability in EM

BY CARLO REYES, MD, JD

There's a disturbing trend for front-line providers in medicine. It apparently isn't enough to worry about nailing the diagnosis and landing top satisfaction scores. Now we also have to look out for something unexpected: patients pushing us to the brink

of rage and recording it on their phones.

Most patients innocently record things in the ED out of sheer fascination. I often have patients whipping out their phones to attempt to record me as I repair their (not so) gruesome laceration. I remind them that hospital policy prohibits this,

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TXA

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quickly turned from rivulet to river. I hastily inserted a Rhino Rocket and rotated the ENT chair backwards as Mr. E passed out. I hustled to find a nurse as a helpful hospitalist remarked, “Your patient in Room 12 is about to code.”

The Evidence

The following study is several years old, but has not yet widely diffused into practice (at least from our perspective). It looks at using an injectable form of tranexamic acid topically for epistaxis treatment. (*Am J Emerg Med* 2013;31[9]:1389.) We have never met an emergency physician who relishes treating epistaxis or a patient who likes nasal packing, so it seems like a study that should grab our interest. Of course, sending a patient home with packing is generally accepted as safe from a clinical perspective and usually avoids bounce-back bleeding.

But from a patient perspective (speaking from personal experience after I [DB] received a stiff elbow to my nose playing basketball), packing is miserable. Packing makes it nearly impossible to breathe, sleep, smell, and speak (at least in a tone that is tolerable to those nearby.) Ideal epistaxis management should involve sending patients home *without* packing.

Any technique that allows for this is superior to the wide array of nasal packing options.

The Zahed study compared a tranexamic acid (TXA) cohort with a “usual care” nasal packing group of ED patients with anterior nosebleed. Eligible patients were randomized to receive a 15-cm cotton pledget soaked in the injectable form of TXA (500 mg in 5 mL) that was left in place until bleeding arrested or cotton soaked with epinephrine (1:100,000) + lidocaine (2%) for 10 minutes, and then packing with several cotton pledgets covered with tetracycline. Nasal packing, when done, was removed after three days, and rescue cautery was permitted for both groups. The primary outcomes were time to arrest bleeding, ED length of stay, rebleeding at one week, and patient satisfaction on a visual analog scale (VAS) at time of discharge.

The 216 enrolled patients were similar in age, platelet count, and INR, though the TXA group had a much higher rate of prior bleeding (58.1% vs. 13.6%). The TXA group (n=107) had significantly faster time to ED discharge (95.3% within two hours versus 6.4%) and lower rates of rebleeding at 24 hours (4.7% vs. 12.8%) as well as in the 24 hours to one-week time frame (2.8% vs. 11%). The self-reported satisfaction rate was also higher with TXA (VAS 8.5 ± 1.7) compared with anterior nasal packing (VAS 4.4 ± 1.8). Neither

group had any serious adverse events.

The manuscript is rather thin on certain details (it is not clear if rescue cautery was used), and the comparison group received cotton pledgets only (rather than an inflatable/expandable packing). The same research group recently replicated its findings in a population at higher risk for rebleeding (patients on aspirin or clopidogrel), and the cumulative results are compelling enough to justify a trial in day-to-day practice.

The Trial

Fortunately, Mr. E. in room 12 did not code, but he did require immediate resuscitation and soon became Mr. E. in Trauma A. His ghost-like doppelganger was replaced with a more perfused version of himself, so I initiated the TXA protocol. I removed the Rhino, and the pharmacist delivered the vial of injectable TXA to

the bedside. I dripped it onto the cotton pledget and placed it in his nostril for 10 minutes: no bleeding, no repeat syncope. Mr. E. went home with routine nosebleed home care education and instructions to take an NSAID holiday. He did not return.

The Verdict

So far, so good using the TXA approach to epistaxis. Between us, we have had several additional successes and one warfarin-epistaxis ED failure that required the patient discharge home with packing. The most difficult aspect of the approach (at least in our EDs) is coordinating with the pharmacy to attain the injectable TXA, but otherwise there is little downside to adding TXA to your nosebleed armamentarium. If I ever get cracked in the honker again and need epistaxis care, I’ll be asking for TXA. **EMN**



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Dr. Ballard is an emergency physician at San Rafael Kaiser, a chair of the KP CREST (Clinical Research on Emergency Services and Treatments) Network, and the medical director for Marin County Emergency Medical Services. He is also the creator of the *Medically Clear* podcast on iTunes or at <https://medium.com/medically-clear>. Follow him on Twitter @dballard30. Read his past articles at <http://bit.ly/EMN-MedClear>.

BOUNCING BACK

Art

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MJB: Physicians experience intense moments with patients during their practice. These moments can be captured or articulated into understandable meaning through artistic expressions that move, uplift, challenge, lament, restore, reset, and foster reflection. Some of my favorite paintings are Munch’s “The Scream” and Van Gogh’s “The Starry Night.” Like pieces of music, these famous paintings often capture the essence of what I am experiencing in the moment.

What advice would you give to medical students considering how art fits into a career in medicine?

JS: I remember medical school seeming like a universe unto itself—endless

study, strange work hours, and always the pressure of performance. I would often feel like a ghost when I left the hospital to go home, knowing I would be back before I knew it.

Don’t forget about the world you are leaving behind. Stay connected. Even if it doesn’t seem intuitive to go to a museum or read non-medical, make yourself! You could be surprised by how it can change the way you look at your work.

MJB: I encourage pre-med students to take fine arts classes if possible and for medical students to seek out medical humanities courses. These courses can augment medical study and create enrichment through art.

How would you inspire art to be a part of medical practice and education in your ED?

MJB: Patient rooms could be personalized through artwork and

enclosed display cases with rotating exhibits of poetry, painting, photos, and sculptures in public hallways, in EMS and staff breakrooms, and public cafeteria spaces. Submission of artwork through friendly competitions could encourage the medical staff and the surrounding hospital community to nurture and restore coherence as we encounter pain and

hurt that tears at the fabric of the lives we have and the lives we treat.

JS: I try to use references that may illustrate any number of events that occur clinically, whether it is the ambiguity of the Mona Lisa’s smile or a *Catch-22*. Art and literature’s place in the world is to reflect upon it, provoking us to ask, describe, enjoy, doubt, and discover. **EMN**



Dr. Schiller is the assistant program director in emergency medicine at Maimonides Medical Center in Brooklyn. He is also a founder of AirwayStories.org, which sponsors storytelling events where emergency physicians can share their experiences in the trenches. Follow @AirwayStories on Twitter.

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