Bounce Backs

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It happens to the best of us

Learn from your mistakes
Confidential
Case 1
HPI

- Pt is a 42 y/o female presenting with finger pain s/p puncture wound 4 days ago. Her 10y/o son was choking and she put her finger in his mouth to remove object. She was accidently bit. Sustained wound to R distal index finger. + pain and edema. Denies any fevers or purulent drainage.
ROS

- Skin: + wound
- MS: + finger pain, edema and erythema.
- Otherwise negative
PMH

- PMH
  - HTN
- Social Hx
  - Tobacco
    - Denies
  - ETOH
    - Socially
  - Drugs
    - Denies
- Surgery Hx
  - Denies
Allergies

- NKDA
Physical Exam

- Vitals
  - BP 138/88
  - Temp 99.1 F
  - Pulse 88
Physical Exam

- Pertinent findings
  - MS: + edema, erythema and ttp to distal R index finger. + puss seen. n/v intact, Full ROM or R hand. No d/c or open wound identified.
Physical Exam

- Otherwise negative
Labs / Imaging

- None
Assessment / Plan

- Puncture Wound
  - Fracture unlikely
  - Will I&D (see procedure note)
  - Tramadol for pain in EC and DC
  - Bactrim x 10 days.
  - Tetanus updated
- Return Precautions
  - Fever, increasing pain or edema, purulent drainage from wound
Procedure note

- Verbal consent obtained
- Risks and benefits discussed with pt
- Digital block
  - Lido 1% without epi 3cc
- 18G needle used
- Purulent drainage expressed
- Pt tolerated procedure well
12 days later

- Pt returns to EC after I&D of finger abscess. Edema and erythema resolved but pt still complaining of pain. She finished abx 2 days ago. Denies fevers or wound d/c.
2nd Encounter

- Vitals
  - WNL

- Labs
  - CBC
    - 12.5 no L shift
  - ESR
    - 60
  - CRP
    - 16
2nd Encounter

- X-Ray
  - Osteomyelitis distal R index finger
- Hand service consulted (ortho)
  - Pt taken to OR for I&D
  - Broad spectrum abx started
  - Pt d/c POD 3
Puncture Wounds

- Human Bite “fight bite”
  - *Eikenella corrodens*
- Dog Bite
  - *Staphylococcus, Streptococcus, Eikenella*
- Cat Bite
  - *Pasteurella, Actinomyces, Propionibacterium, Bartonella*
- Nail
  - *Pseudomonas*
Puncture Wounds

- Human bite
  - Augmentin
  - Alt: Doxycycline, Ceftriaxone
- Dog Bite
  - Augmentin, Doxycycline
- Cat Bite
  - Augmentin, doxycycline, azithromycin
- Nail
  - Cipro
Take Home

- Choose the correct abx
- Consider I&D with scalpel
- Consider X-ray
  - FB
  - Osteomyelitis
  - FX
- Tetanus
- Rabies
- Avoid sutures when possible
My Goal in Life

Proper laceration repairs
Laceration Repair

- Step 1
  - Anesthesia
- Step 2
  - Clean/Irrigate
- Step 3
  - Debride
- Step 4
  - Suture
Lidocaine

- What is the toxic dose?
Lidocaine

- Without epi
  - 4mg/kg
- With epi
  - 7mg/kg
Let's do the Math

- 100kg male
  - 100kg x 4mg = 400mg
  - Conversion 1% 10mg per cc
  - Toxic dose= 40cc
Case 2
HPI

- Pt is a 52 y/o male presenting with worsening chronic leg pain x 1 week. Had fasciotomy 10 yrs ago due to a snake bite. Chronic deformity and pain. Denies any injury or pain. Denies any fevers, recent travel or surgery, leg edema or weakness.
ROS

- MS: + leg pain
- Otherwise negative
PMH

- PMH
  - None
- Social Hx
  - Tobacco
    - $\frac{1}{2}$ PPP
  - ETOH
    - 2oz a day
- Drugs
  - Occasional Cannabis
- Surgery Hx
  - Fasciotomy and subsequent skin grafts
Allergies

- NKDA
Physical Exam

- Vitals
  - 150/94
  - 97.9
  - 74
Physical Exam

- General
- MS
  - s/p fasciotomy, Homans neg, no ttp, no edema, no erythema no fluctuance. Full ROM of R leg. n/v intact distally.
Assessment / Plan

- Leg Pain
  - No injury or trauma, fx unlikely
  - With previous surgery concern for DVT, will US
  - BMP to assess renal function
  - CBC to r/o infectious process however unlikely. Pt NAD afebrile and well appearing
  - DC with Vicodin if neg
Labs / Imaging

- BMP
  - Unremarkable
- CBC
  - WBC 13.2 with no L shift

- Ultrasound
  - No evidence of DVT
10 Days Later

- Pt presents at OSH with increasing pain. CT was done which showed compartmental abscess. Pt was taken to OR for I&D. DC POD 7
What did we miss?
Additional Info

- Nursing notes
  - Assessment
    - Pt with leg pain. Ambulatory with crutches.
  - D/C note
    - Pt taken to cashier ambulatory on crutches.

- No recent Narcotic Prescriptions filled
Take Home

- Address all abnormal lab values
- Read Nursing notes
Case 3
Pt is a 52 y/o Hispanic male presenting with fatigue, n/v and myalgia. His symptoms began suddenly his morning. He went to his PCP earlier this AM and was diagnosed gastroenteritis. He has had 4 episodes of vomiting and diarrhea. His PCP referred to EC due to tachycardia and fever. He denies any abdominal pain. + subjective fevers. Denies any CP, SOB or HA.
HPI

- Clinic note reviewed
  - Vitals in clinic
    - 158/110
    - 101.1
    - 123
PMH

- PMH
  - DM, HTN, PUD
  - Home Meds: Nexium, Metformin, Lisinopril
- Social History
  - + smoker, drinks socially
- Surgical History
  - Appendectomy
Allergies

- NKDA
ROS

- General
  - + fatigue, + fever,
- GI
  - +n/v, no abdominal pain
- MS
  - + myalgia

- Otherwise negative
Physical Exam

- Vitals
  - 160/102
  - 100.3
  - 130
Physical exam

- General
  - NAD but sick appearing
- Cardiac
  - Tachycardia, regular rhythm, no murmur
- Lungs
  - CTAB
- Abdominal
  - No TTP, no guarding
Assessment / Plan

- Tachycardia, n/v, fever
  - Concern for infectious process unsure of cause
  - IVF
  - Tylenol
  - Zofran
  - Labs and imaging
  - Reassess
  - Rectal temp
Labs / Imaging

- CBC
  - 15.2 with L shift
- VBG
  - pH 7.38 Lactate 3.1
- BMP
  - Glucose 201
- CXR
  - negative
- UA
  - negative
ED Timeline

- 1300
  - Pt triaged to CC area due to tachycardia
- 1308
  - Rectal temp 104.2
- 1322
  - 2L IVF and 1 gram of Tylenol
- 1404
  - No improvement of fever and tachycardia, 1L IVF ordered
ED Timeline

- 1545
  - Pt screaming c/o abdominal pain, CT ordered, VBG repeated
  - 4 morphine
  - Exam benign concern for bowel ischemia due to pain out or proportion of exam and elevated lactate
- 1600
  - Lactate increased to 5.2
ED Timeline

- 1633
  - CT neg, pt started on broad spectrum abx, request for hospital admission
- 1700
  - Pt signed out to oncoming CC team
ED Timeline

- 1723
  - Pt becomes hypotensive
- 1730
  - CPR in progress. No return of spontaneous circulation
- 1800
  - Pt expired
Final Diagnosis

- Sepsis due to bacteremia caused by *N. meningitis*
Sepsis

- Approximately 200,000 deaths per yr
- A leading cause of death
Sepsis

- Definition
  - The systemic response to infection
  - SIRS criteria + source of infection
SIRS

- Systemic inflammatory response syndrome
- Does not confirm infection
- Can be seen with:
  - trauma
  - Pancreatitis
  - Burns
  - infection
SIRS

- Must meet 2 out of 4 of the criteria
  - Core temp >100.9 or <96.8
  - Tachycardia >90
  - Respiratory rate >20 or PaCO2 <32mm Hg
  - Leukocytosis >12,000 or <4000
    - Or >10% bands
Tachycardia

- **DDX**
  - Drugs, anxiety, PE, fever, infection, stress, DVT, anemia, dehydration, hyperthyroid, thyroid storm, psychosis trauma, a-fib, HTN, arrhythmias, ETOH, pain, electrolyte abnormalities, sepsis, smoking, CAD, ischemia, etc...
Take Home

- Never ignore tachycardia
- Get rectal temp
- Early recognition of sepsis by identifying SIRS criteria
  - Early abx