MCI-Case Review

In the Field

Details…

4 occupants

1-Driver-female-30’s

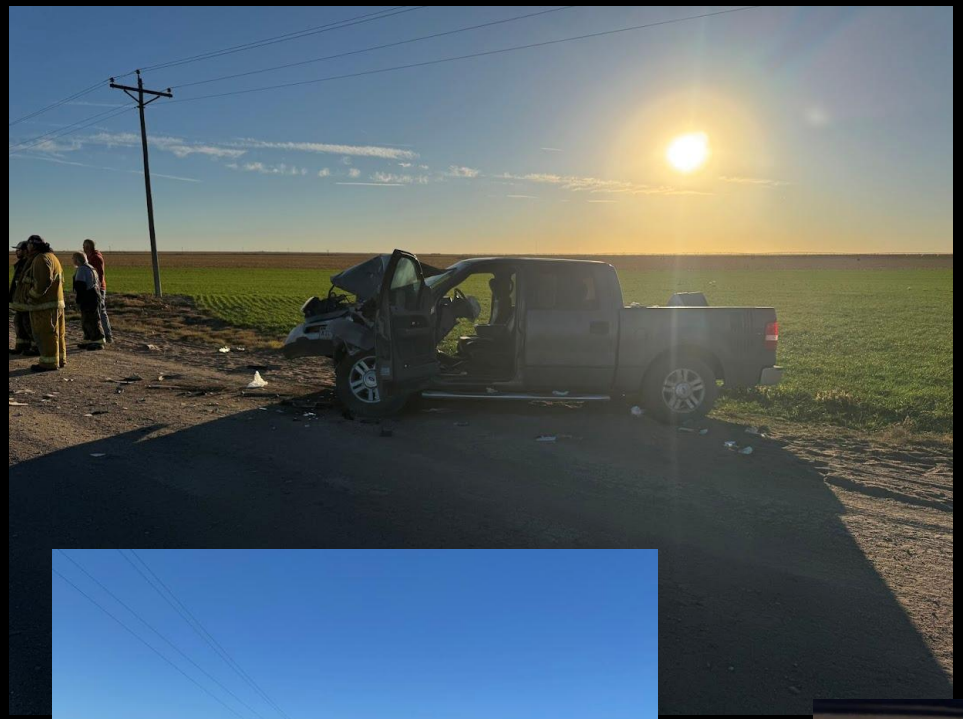
2-Passenger-female-teenager

3-Passenger-female-child

4-Passenger-female-child

Management of scene

- What’s important with MCI?
  - Know the scene
  - Know the roles
  - Know the scopes
  - Know the patients
  - Know your resources
  - Know you location
  - Know the closest facilities capabilities



OUCH!!

County Roads/Highways

- What would you like to know?

Injuries?

Outcomes

- 40
- Four patients transported in two ambulances
- Two critical
- ALL ALIVE

- X
- 6 patients on scene
- One deceased on scene
- 5 transported and …

All Diagnoses/Injuries:

- Dislocation of pubic symphysis
- Left superior and inferior pubic rami fractures
- Bilateral SI joint malalignment
- Probable left obturator ring fracture
- Multifocal intraparenchymal hemorrhages
- Possible DAI
- Cerebral edema
- trace SAH
- thin SDH along bilateral posterior cerebral hemispheres
- Lateral neck soft tissue swelling
- Moderate right hemoperitoneum
- Large right PTX
- Bibasilar aspiration
- Grade 2 BCVI right IC
- Grade 1 BCVI left IC, R V2 segment

CTA H/N w/wo contrast 11/5/25: CT BRAIN: 1. Multifocal intraparenchymal hemorrhages involving the inferior left frontal lobe and near the gray white matter junction of the posterior parietal lobes, concerning for possible diffuse axonal injury. 2. Diffuse sulcal effacement, suspicious for cerebral edema. Grey white matter differentiation is maintained. 3. Scattered areas of sulcal hyperattenuation, particularly along the left frontal lobe, which may reflect trace subarachnoid hemorrhage. 4. Thin subdural hemorrhages along the bilateral posterior cerebral hemispheres.

- He is still in the ICU with increasing ICP. Neurology notes: # Multi-compartmental ICH
- # Cerebral edema
- # Intracranial hypertension
- # BCVI
- # Risk of seizure
- - ICP monitor placed 11/5, fiberoptic replaced 11/11
- - ICP 3-27 mmHg over 24 hrs
- - Failed flat trial overnight for ICP 18-20 not responsive to multiple sedative bolusesEvents: persistent intracranial hypertension requiring aggressive management including ongoing hypertonic saline boluses, deep sedation, neuromuscular blockade, enforced temp of 36, his CT scan yesterday actually showed improvement in his swelling during a period where his ICPs were similarly elevated, neurosurgery liberalized ICP goal to less than 25 based on imaging, pupillometry has remained reassuring with NPIs >4, continues to be hypertensive despite deep sedation, failed clevidipine which caused the same TWI and ST depressions as nicardipine, and continues to require labetalol and hydralazine to maintain map goals
-
- Plan: continue aggressive management of intracranial hypertension, supportive nerurologic care, enforced normothermia, minimize noxious stimuli, continue deep sedation, NMB, continuous EEG, will correlate any abnormal activity with his ICP, continue titration of mechanical ventilation, target low normal CO2, wean other settings as able, pulmonary hygiene, continue strict control of SBP 90-140, labetalol and hydralazine if needed, continue close hemodynamic monitoring, telemetry, will assess serial pocus if tolerated but avoid scanning while ICP elevated, goal euvolemia, avoid fluid overload with careful diuresis if needed, continue q4 electrolyte monitoring with goal serum sodium 155-160, continue TF at goal, continue pelvic traction with ortho following daily, will eventually need ORIF when he is more stable, monitor for signs of bleeding, has not required any recent transfusions, continue monitoring serum glucoses which have been normal, continue SQH and ASA 81.
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- This morning this note was added:
- Called by bedside by RN at approx 12:50AM. Patient was receiving a bath and had significantly elevated ICPs up to 52 with a turn, bradycardic to 40, HTN to 150s. Over the course of about 25 minutes (00:45-01:10), patient received a total of fent 400mcg, midaz 20mg, dilaudid 8mg, propofol 120mg, cis 0.1mg/kg and increased cis gtt from 2mcg/kg/min to 10mcg/kg/min. HTS 23% x1, mannitol 50g x1. Hyperventilated to 28 breath/min. NSGY at bedside. Around 01:10am, goal ICP <25 achieved. Will plan for EVD placement, consent obtained by NSGY from guardian Sarah McManigal and confirmed by myself via phone. Will give 1u FFP for R time 13 during EVD placement.
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- - R EVD placed 11/17 am, following CTs stable and draining, 47 cc output 11/17. OK for OR w/ ortho if patient tolerates w/ sedation and/or paralysis and EVD output.
- - Family meeting 11/17 at 1300, will update family this afternoon as NSGY unable to attend meeting at that time.

Wow. Well, they weaned him from sedated and did a trach and PEG tube. Neuro reports that yesterday his "eyes open to command, moves all four extremities and follows complex commands. GCS 10".

Physical therapist notes today: Patient seen for re-evaluation due to improved arousal and command following and currently presenting with decreased independence in functional mobility due to impairments in the areas of activity tolerance, command following, communication, gross motor coordination, level of arousal, midline orientation, respiratory reserve, safety awareness, sequencing, and sitting balance, which is significantly below functional baseline.

Pt more alert, nodding yes/no appropriately during span of therapy session. Pt with improved head control and activity tolerance although needed ongoing mod<>max A for trunk control and with elevated RR 30<>40 with sitting. Anticipate pt will emerge as an excellent AR candidate.

Occupational therapy notes: Patient seen for OT re-evaluation for improving functional cognition and updated discharge recommendations. Patient remains limited by impairments in the areas of strength, generalized deconditioning, balance, activity tolerance, communication, and cognition resulting in decreased independence for ADLs, decreased independence for IADLs, decreased independence for functional mobility required for ADL completion, increased burden of care for ADLs, and decreased safety during daily activities as compared to prior level of function.

Pt sat at EOB ~8 minutes /c Max A for sitting balance. Pt with improved command following this session with pt following 100% of commands and responding to questions appropriately. Pt noted to be ICU-CAM - without disorganized thinking. Pt with improved cognition but limited by trach for verbalizing but giving appropriate yes/no responses.

- Hey, I looked your patient up today and he is speaking in full sentences and is AAOX4. As they were weaning him from sedation, he pulled his own trach out but was able to maintain his own airway and is on 2 lpm, so they did not replace it. He was told about his brother yesterday and the staff is providing grief and emotional counseling for him. It seems like he is struggling with that but has expressed that he wants to get up, move around and wants out of the hospital. It looks like Craig hospital will be his next stop for some therapy and more recovery. Strong young man!!

- I hope you guys are proud of yourself because am emotional just sending this. Amazing story and amazing people who got him there to let him fight. Great job!


BURLINGTON VOLUNTEER FIRE DEPART
TECHNICAL
RESCUE

QUESTION??

- MEDICINE IS NOT ALWAYS RIGHT…

- TRUST YOURSELF, YOUR TEAM, AND YOUR TRAINED SKILLS!!