ATV VERSUS TREE

Region 3 Trauma Symposium March 5, 2020
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History of Present Illness

42 year old male
Riding a dirt bike, unknown speed, separated from bike after striking a tree.
Full gear with helmet
Unknown loss of consciousness
Reports cervical and thoracic spine pain, bilateral shoulder pain, no paresthesia
Positive motor and sensation X4 extremities
EMS Treatment

Cervical and spinal precautions
2 peripheral IV’s
100 mcg Fentanyl for analgesia
Scoop stretcher for extrication
Fire Rescue transports crew to pt. location
• 13:15
• HR – 60
• BP – 128/63
• SpO2 – 100%
• RR – 22 unlabored
• Pain – 10/10

• Physical assessment
• Monitoring equipment applied
Physical Assessment

Skin: Pale, warm and dry
Head/face: Symmetrical without deformity
Neck: Trachea midline, no JVD
Chest: Equal rise and fall, clear BBS
Abdomen: Soft, flat and nontender
Pelvis: Stable to palpation
Extremities: Intact pulse, motor & sensation X4
13:20
HR – 69
BP – 110/64
SpO2 – 98%
RR – 25 unlabored
Pain – 10/10
13:30
HR – 63
BP – 121/84
SpO2 – 97%
RR – 25 unlabored
Pain – 10/10

- 4 mg Zofran
- 100 mcg Fentanyl
13:35  
HR – 54  
BP – 123/82  
SpO2 – 100  
RR – 26 unlabored  
Pain – 10/10

- Secured to stretcher and loaded into aircraft
13:45

HR – 50

BP – 125/84

SpO2 – 100%

RR – 26 unlabored

Pain – 8/10

• O2 via cannula @ 4 lpm
13:45
HR – 54
BP – 125/84
SpO2 – 100%
RR – 26 unlabored
Pain – 8/10

- Fentanyl 100 mcg
- 12 lead EKG
13:50
HR – 47
BP – 125/80
SpO2 – 96%
RR – 25 unlabored
Pain – 7/10

• Landing at Hospital
13:55
HR – 52
BP – 133/82
SpO2 – 100%
RR – 25 unlabored
Pain – 5/10
(+) pulse, motor & sensation X4 extrem’s

• Transfer care
CT of cervical spine

- Hyperextension
- Left Lateral flexion injury of C4
- 0.71 cm retropulsion
- Widening of C1 ring
- Epidural hematoma of central canal C1-C4
- Complex burst fracture at C4 and C1
- Stenosis of Left vertebral artery
MRI of cervical spine

- Fracture of C1 vertebrae with disruption of the ring of the atlas
- Injury to the tip of the dens
- Abnormal vascular flow to left V3/V4 segment
Follow up

- Patient transferred to U of M
- Two surgeries within 24 hours
- Halo placed for 6 weeks
- Physical therapy started at 3 days
- Fine Motor movement is the challenge
- Expected to make a promising recovery
Questions