TRAUMA 14 APRIL 2020

CASE ONE

A R40 is called in with a 20yo male in a high speed roll-over; he was trapped in vehicle for 30min before extrication by the emergency services. They will be in the department in 10minutes.

BP 90, HR 120, RR 30, Sats 92%, GCS 13 (M6)

1. **What are you clinical concerns for this patient and how would you prepare for this arrival?**

2. **The patient arrives and is handed over by the ambulance team. He has been given 200mg ketamine IV total, 10mg morphine, and 1L crystalloid**.

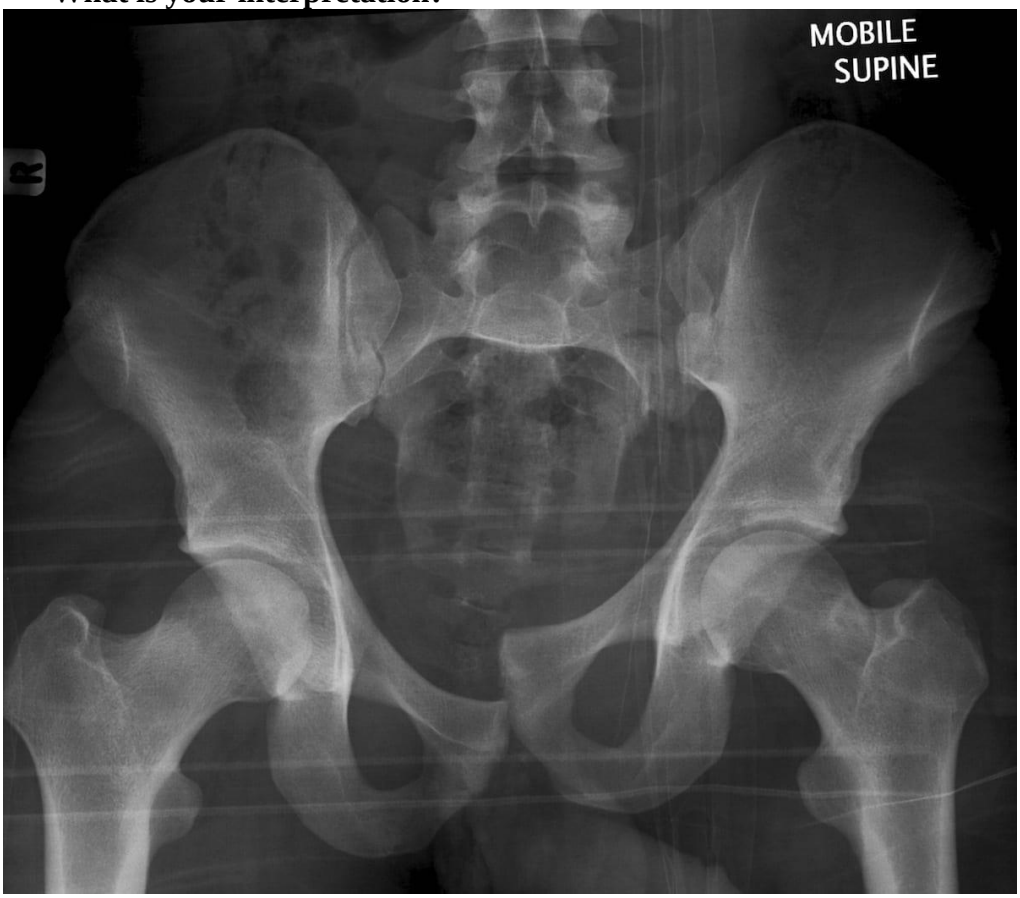
His obs: BP 90/50, HR 130 sinus, RR 28, 92% o/a, GCS 13 (M6)

- There are no obvious deformed long bone injuries or external blood loss, no significant external head injuries.

- **Discuss your approach to resuscitation management and investigation?**

3. **The patient becomes more hypotensive and tachycardic despite 1unit RBC and prior 1L N saline. BP 70/40, HR 140bpm. His eFast is negative. There are no external sources of blood loss. What is your concern and how will you manage and investigate further?**

4. **His portable CXR looks essentially normal. His pelvic xray is below. What is your interpretation?**



5. **Despite a further 4 units RBC and 2 units FFP he remains with a BP of 70 and HR 120. He looks pale and now is becoming cerebrally irritated with increasing O2 requirement. What are your priorities?**

CASE TWO

A young man is brought to the front door in the back of a utility with major upper limb, lower abdominal and hindquarter trauma. He has suffered these injuries at a commercial worksite 10 minutes down from the ED after being crushed by a crane. He is placed into the resus bay initially making moaning noises which cease quickly.

Observations: BP undetectable, HR 60, GCS 3

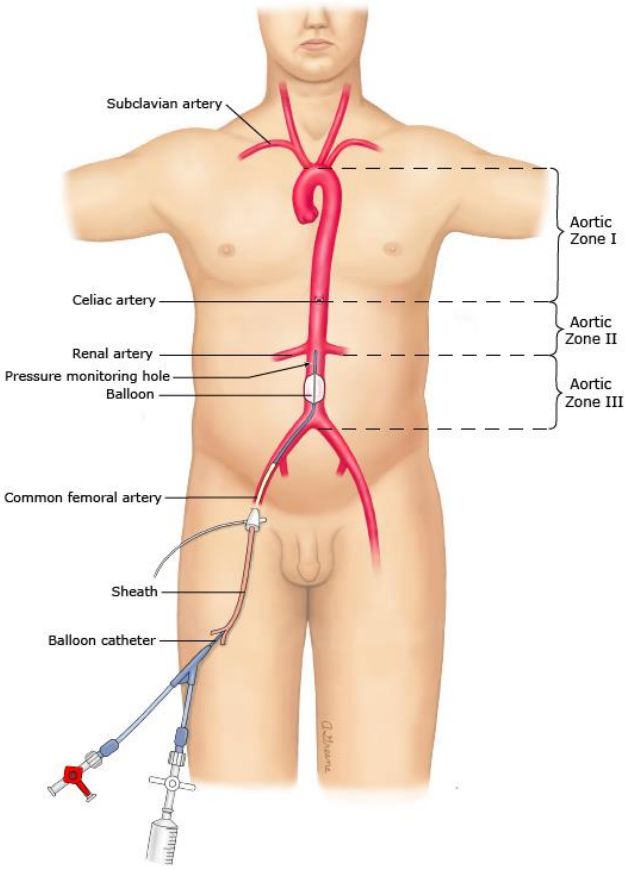
1. Below is an image of the injuries; discuss your approach to the management?

2. Discuss management of cardiac arrest in trauma and role of CPR?

3. There is an obvious RUL amputation, R hindquarter amputation/open pelvic injury; discuss how will you address haemorrhage control?

4. Peripheral IV access is impossible in this patient what are your options?

5. Despite large rapid blood product resuscitation no perfusing output is detected. Discuss if there is a role for resuscitative thoracotomy or REBOA in this patient?



6. **Discuss the use of the MTP and the aims of blood product resuscitation in trauma?**

CASE THREE

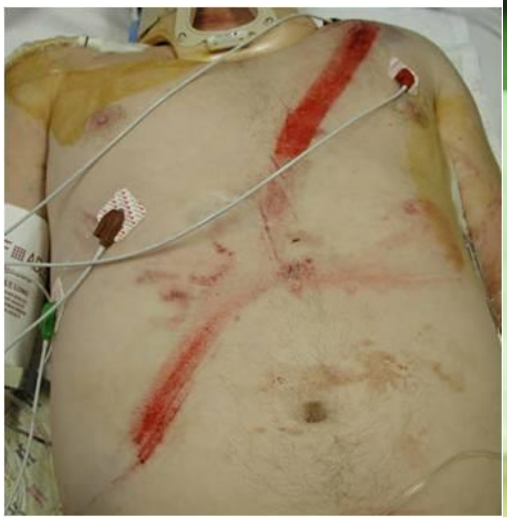
R40 32 year old man in RTC high speed who has significant facial injuries. His vitals are as follow:

GCS 12 (M5), BP 140/70. HR 120. 92% o/a, RR 25

1. ***Discuss your concerns and how you would prepare for the arrival?***

2. ***On arrival you notice these obvious injuries,*** **discuss you impression of potential injuries based on these images?**

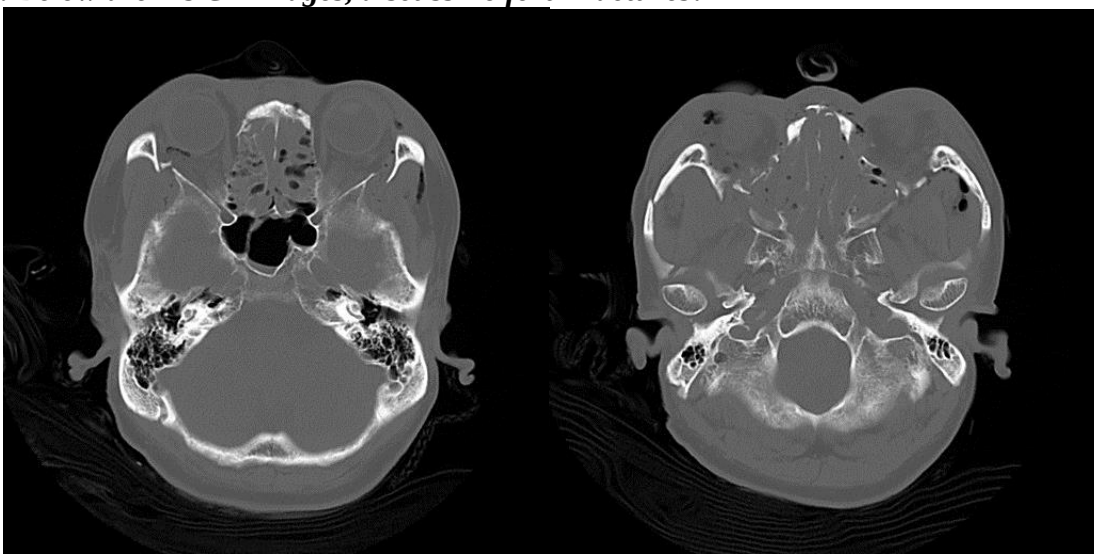
GCS 12 (M5), RR 20, BP 120, HR 110, Sats 95% o/a

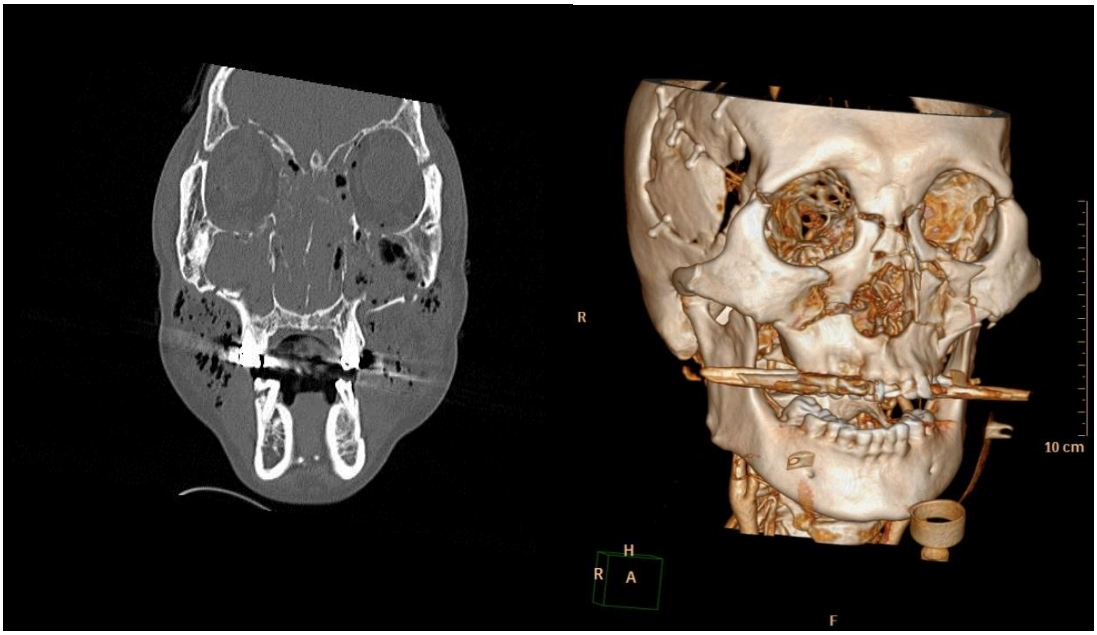


3. ***He is maintaining his own airway in an elevated position is confused but will sometimes obey command. You note large volume epistaxis from the right, with blood going posteriorly requiring suction to clear. How can you manage this?***

4. ***What further investigations would you undertake?***

5. Below are his CT images, discuss Le fort Fractures?





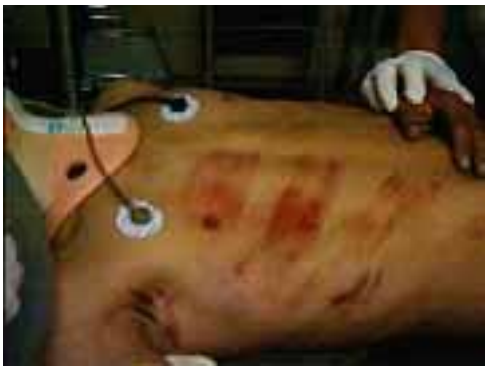
6. ***After CT he becomes suddenly more agitated, with obstructive upper airway noises, he is hypoxic saturations 80% despite 15L O2 via mask, BP 150 systolic, HR 140bpm. What is your concern and how will you manage this?***

CASE FOUR

R40 44 yo male single occupancy high speed RTC off road into a tree and rollover, he was apparently ejected from the vehicle. The ambulance will be in the department in 5 minutes. Obs provided area: GCS 12, HR 120, BP 90

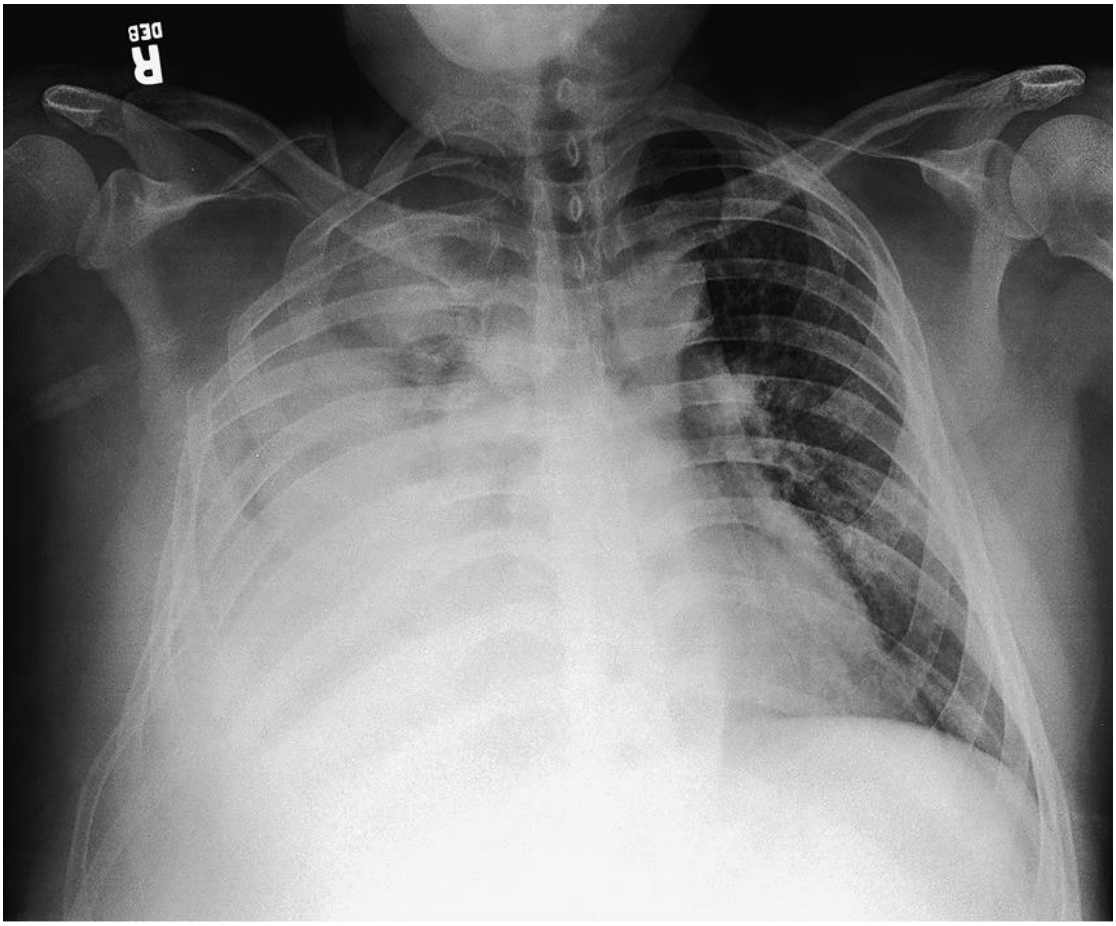
1. **On arrival to the resus bay he is obvious respiratory distress. Below is an image of his injuries. Discuss your approach to his management and your priorities?**

Obs: GCS 12 (M5), HR 130, RR 35, Sats 88% on mask 15L, BP 88/50



2. **Discuss the technique of performing a primary finger thoracostomy and why it is preferred by most over needle decompression in unstable patient?**

3. **A right finger thoracostomy is performed on arrival under some fentanyl analgesia with relief of a pneumothorax, there are obvious rib fractures. The patient has an improvement in oxygenation and BP after this procedure. Below is his CXR please discuss the findings and your next management options?**



4. **A Right sided chest drain is inserted through the finger thoracostomy site. Immediately 1000ml blood drains from the tube. He becomes less responsive with a HR of 120 and BP down to 70 systolic. Discuss your management**?

CASE FIVE

R40 High speed RTC 100kph +, unrestrained 32you male driver who is intoxicated is being transported to your department. The patient seems to have a spinal cord injury. They are 2minutes away. They observations provided are:

GCS 14 (M6), RR 25, Sats 94% oa, BP 80/50, HR 100bpm

1. **Discuss your preparation and clinical suspicions for injury?**

2. **On arrival it is clear that he has a high spinal cord injury with poor diaphragmatic breathing efforts. Discuss your approach to his assessment and management?**

His observations are: BP 80/50, HR 100, RR 25, Sats 93% o/a, GCS 14

3. **Discuss primary and secondary spinal cord injuries and aims in emergency care?**

4. **He deteriorates and becomes more hypotensive 60 systolic with a HR of 40bpm sinus. What are your concerns and how would you treat this?**

5. **You note deteriorating respiratory effort, increased RR and increasing oxygen requirement. Discuss how spinal injuries affect respiration and how you manage this patient?**