The above clinical case is based on an actual patient who presented to the emergency on the day of cyclone Amphan.

Answer 1) So when a Polytrauma patient arrives at the ER we follow the ABCs of Trauma!

Primary Survey-

1.Airway- Since the patient is able to speak we can safely assume the airway is fine.

2.Breathing-When you assess for breathing firstly look for chest rise.Then use your stethoscope to check for bilateral air entry.If there is bilateral air entry it means air is entering into the lungs but is your blood getting oxygenated? To confirm oxygenation of blood use pulse oximetry to check saturation.In this particular patient we had slightly reduced breath sounds on the right side which can point to a possible pathology.

3.Circulation- A pulse of >100/min and a SBP <100 in a trauma patient always signifies a 30% blood loss.Now the possible sites from where the person can bleed to cause hypotension of such a magnitude are the chest,abdomen,pelvis and extremities.Always remember intracranial hemmorhage can never cause hypotension as there is not enough space in the cranial vault to accomodate that amount of blood.

So this patient is in definite hemmorhagic shock hence place two large bore IV lines and infuse a bolus of 2 Litres of isotonic crystalloid solution.If patient is still unstable consider PRBC transfusion.

4.Deformities- As the patient was alert and conscious GCS= 15/15.Traumatic injury to brain and spinal cord were ruled out.

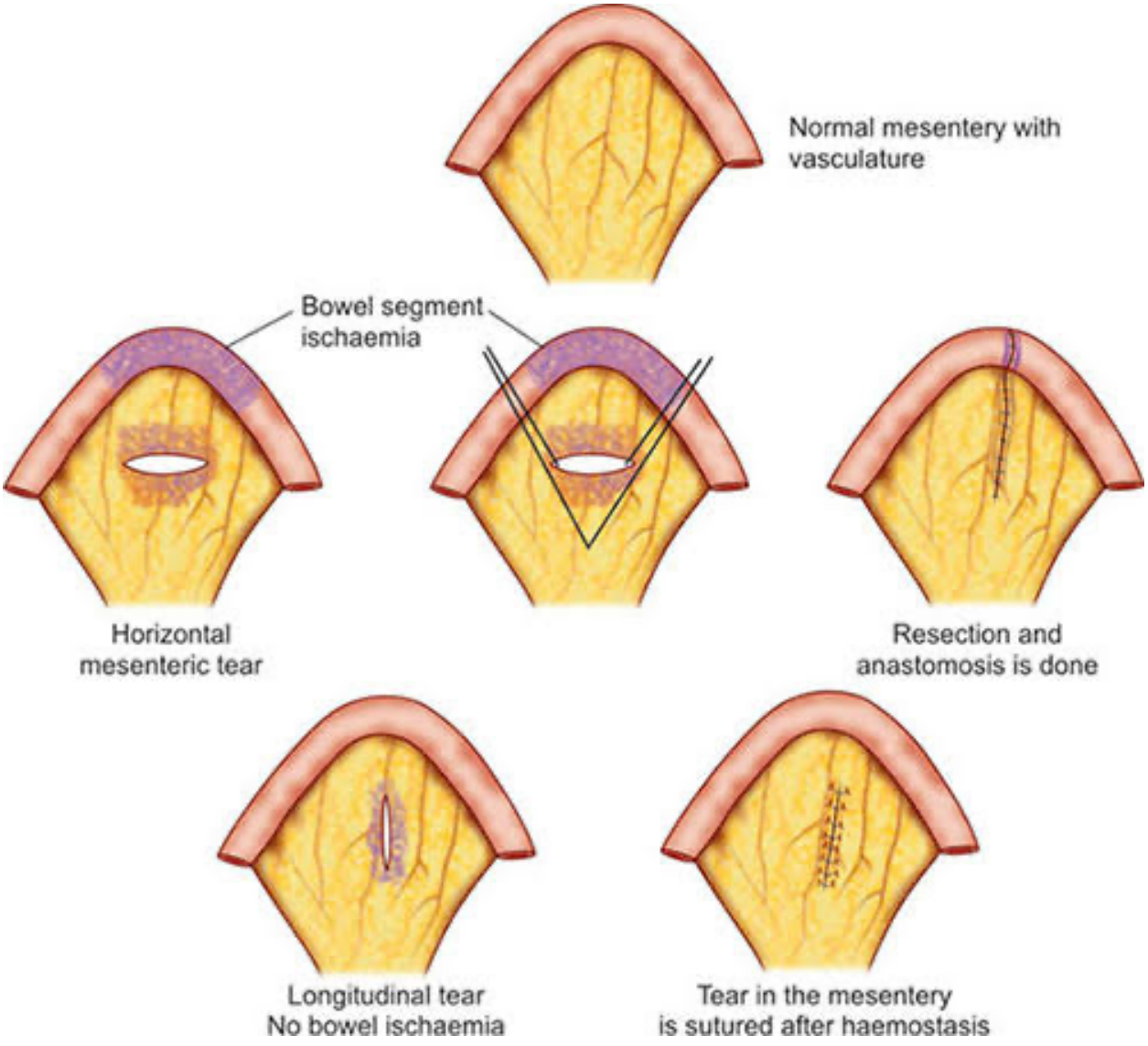
5.Exposure-On removal of clothing the imprint abrasion of the seatbelt was noted which pointed towards seatbelt syndrome.Since the patient specifically mentioned he was sitting beside the driver the seatbelt traversed his right chest and abdomen.

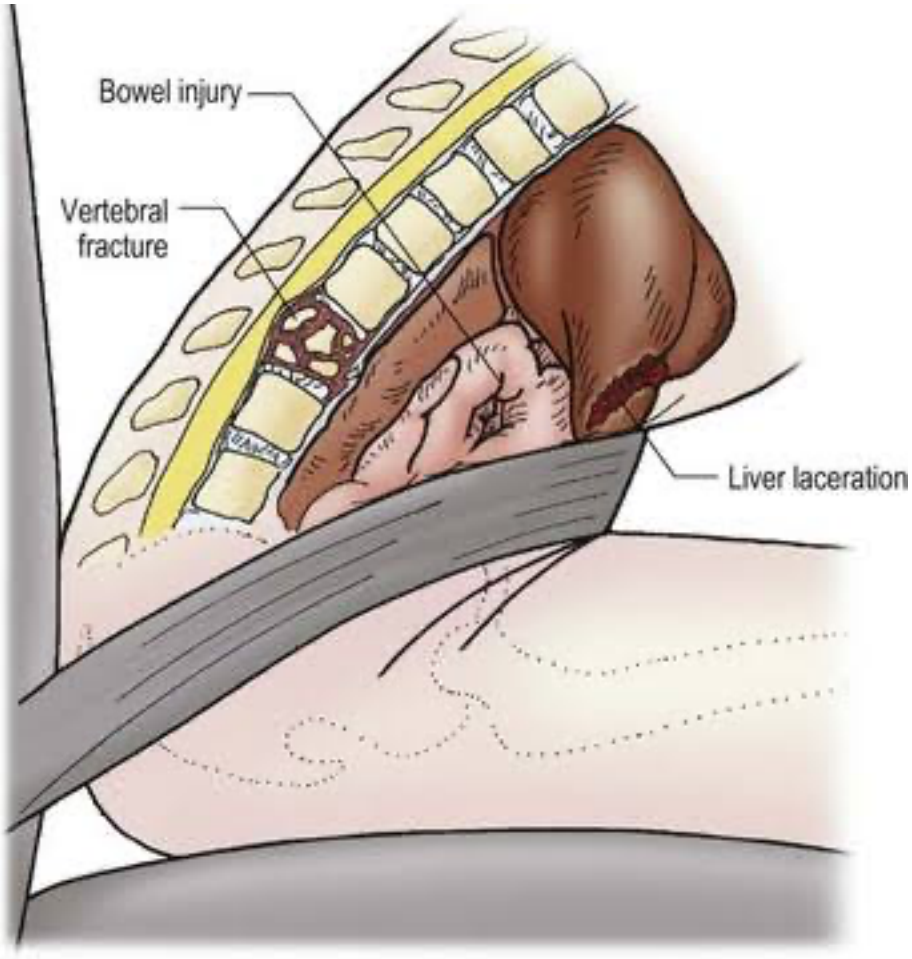
Answer 2) When there is RTA it results in a deceleration injury where the mobile small bowel falls forwards while the mesentery of the bowel remains fixed resulting in a stretching of the mesentery.This results in mesenteric tear(*see attached image*)

Mesenteric tear can cause singnificant bleeding from the mesenteric vessels.Owing to the position of the seatbelt liver injury can also occur.

Another common occurence in seat belt injuries is Chance fracture of the lumbar vertebrae.(*see attached image*).Also keep the seatbelt triad in mind when dealing with such injuries.

Seatbelt Triad: Severe Abdominal Wall Disruption, Hollow Viscus Injury, and Major Vascular Injury


Normal mesentery with vasculature
Bowel segment ischaemia
Horizontal mesenteric tear
Resection and anastomosis is done
Longitudinal tear No bowel ischaemia
Tear in the mesentery is sutured after haemostasis



On abdominal exam there is diffuse tenderness but no rigidity or rebound tenderness (signs of peritionitis).If signs of peritonitis were present it would be an immediate indication for exploratory laparotomy.In this case a FAST scan is warranted which showed intrabdominal collection.Now twithout a doubt we had to take this patient for exploratory laparotomy.

But before shifting the patient to the OR you will need to place a foley catheter to monitor urine output and put in a ryles tube to decompress the stomach for better visibilty during the operation.

However the most important thing to consider in a patient with concurrent chest trauma and abdominal trauma is to place a chest tube on the side of suspected chest injury.As when the anesthestist induces general anesthesia that minor air leak might convert into a tension pneumothorax leading to an on table catastrophe.

During exploratory laparotomy we found a huge longitudinal mesenteric tear which was primarily repaired.Liver laceration was also found on the inferior surface which was managed by packing.

Post operative period for the patient was uncomplicated and he was discharged in stable condition.