CASE SCENARIO (6) – SURGERY II

32 y/o MLP, no significant PMH, presented to ER with h/o RTA

C/O ~ pain on on left side of CHEST & ABDOMEN

he was ~ anxious, dyspneic, [PR 145 BPM] [BP 90/60 mmHg]

→ pedal bleeding (in shock)

On CHEST EXAMINATION :-

- ↓ Air entry on left side
- Hyper resonance on percussion of left side

→ (Air) pneumothorax

On ABDOMINAL EXAMINATION :-

- Abdomen was tender, more on the left side → spleen.
- ~~Normal~~ positive Bowel sounds

QUESTIONS :-

1. What is the primary management that you should do?

- A → airway (check the airway for any obstruction)
- B → Breathing (check O_2 sat & give O_2 mask) + **Chest tube** ★★★ → for pneumothorax
- C → Circulation (2 large-bore cannulae, take blood for analysis & give either Normal Saline or Ringer's lactate stat. – first 10-15 min ≈ 2 liters)
- D → Disability, support cervical spine (neck) & assess neurological function
- E → Exposure → check ~~for~~ the whole body for possible injuries

or **needle thoracostomy** ★★★ if pt. is unstable

+/-
- CXR → Rib Fx causing pneumothorax
- VSS [FAST] → check for splenic Rupture & internal haemorrhage

→ (+ve) → CT to assess the splenic injury & decide Treatment plan. (patient must be stable)

Q2: After your primary management, the patient improved, and then his pulse & BP dropped again, what is your next step?

→ if the patient is very unstable & not responding to medical treatment & is NOT A CANDIDATE FOR LAPAROSCOPIC SURGERY & CT cannot be done to assess injury

→ [Exploratory Laparotomy]

Q.)
P.S. if the patient can be restabilized → imaging (if not done already in step 1) then laparoscopic splenectomy?

Q3: If splenic ~~seen~~ injury, what is the next step?

* Asses the Grade of the splenic injury (I — V)

+ consider patient's factors e.g. consciousness, hemodynamic stability ---etc

* Absolute indications for splenectomy
  - unconscious patient
  - patient > 55 years old.
  - classes III — V (some)
  - failure of non-operative mx

• OPERATIONS

(A) Splenorrhaphy
- grade I & II → Superficial Hemostatic agent
- grade II & III → Suture repair
- grade III & IV → Absorbable mesh wrap

(B) Splenectomy

Q: What is the most important complication of splenectomy?

(overwhelming postsplenectomy infection)

OPSI is the most significant complication with highest mortality rate (>50%)

1. incidence → 1-5%
2. caused by capsulated Bacteria
   - S. pneumoniae (50-90%)
   - H. influenzae
   - Meningococcus
   - Salmonella
3. more common in children (1 in 300; adults = 1 in 800) & immunocompromised patients.
4. most frequently in the first 5 years, with the first two years being the greatest risk

Risk Factors

A. cause of splenectomy, immune status & interval from surgery.
B. Higher incidence after splenectomy for malignancy
C. Children age group 1:300

Qs: What shall you do to avoid the late complication

* vaccines
  - ideally when elective → 2 weeks prior to surgery

PPSV23 // H. influenzae // Meningococcal polysaccharide.

* Revaccination is controversial except for PPSV23 in high risk patients

② Antibiotic prophylaxis

- PCN prophylaxis in children is common
- no data on ~~att~~ actually ↓ risk of OPSI

③ Patient's Education.