



EM Clerkship: Simulation Case



Case Presentation

At 5pm, EMS brings in a 37 year old woman who was at home with roommates when she went to the bathroom. Friends heard a loud noise and found the patient unresponsive in the bathroom; her roommates called 911. The patient had a faint pulse per EMS, and was brought, boarded and collared with 2 large bore peripheral access to the ED

Q: What is the next step in management?

Answer: IV - O2 - Monitor

Case Presentation (cont'd)

VITAL SIGNS

- heart rate: **142 bpm**
- blood pressure: **82/45**
- respiratory rate: 14
- O2 saturation: **94%**
- temperature: 98.4

Case Presentation (cont'd)

Primary Exam:

- Airway: **moaning, not responsive to verbal stimuli**
- Breathing: **poor spontaneous effort**
- Circulation: **weak femoral pulses, warm extremities**
- Neurologic: **GCS 9 (E2/V3/M5). pupils 5mm**

Q: What action will you take now?

Answer: Definitive Airway Management

Airway Management

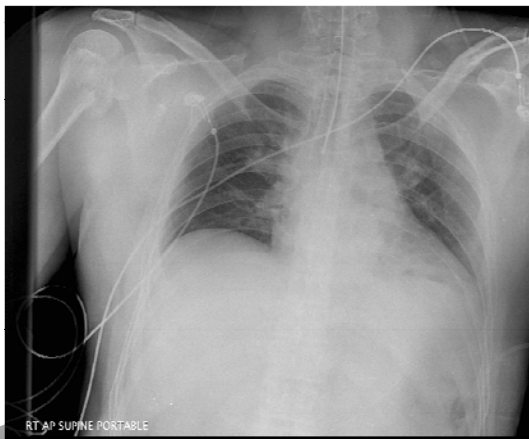
- Supplemental oxygen
- Chin-lift, jaw-thrust
- Suction as needed
- Oral-pharyngeal airway placement
- Endotracheal intubation
- **Suction-Oxygen-Airway-Pharmacology**
- 6 P's



Q: How do you confirm placement of the ETT?

Answer: Observe ETT passing vocal cords

Also: ETCO2 monitor, condensation in ETT, CXR



Q: Your patient is successfully intubated. What needs to be performed next?

Answer: Primary Management



Primary Management

- 2 Liters of normal saline or ringer's lactate
- Foley catheter placement
- Gastric decompression (NG or OG tube)
- ECG
- Labs (CBC, chem profile, UA, T&C, tox, ETOH)
- ABG, cardiac enzyme, pregnancy test prn



Q: Labs are sent. What's the next step in management?

Answer: Secondary Survey



Case Presentation (cont'd)

Secondary Exam: female of stated age

- HEENT: **contusion to chin**
- Neck: no JVP noted
- Lungs: clear bilateral
- Cardiac: **tachycardic**
- Abdomen: **peritoneal**
- Extremities: warm

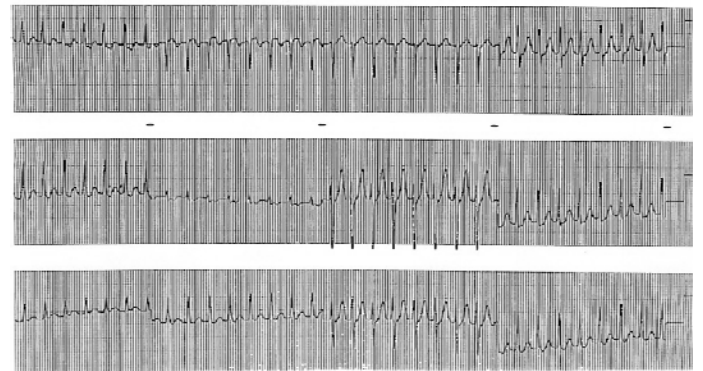


Q: The patient's BP is 70/40 after 2L normal saline. What do you do next?

Answer: Administer 2 units of type specific PRBC



Interpret your patient's ECG



Q: Interpret your patient's blood tests



Labs

Na - 132	Wbc - 16.5
K - 4.1	Hgb - 8.1
Cl - 100	Hct - 24
Bic - 6	Plt - 278
Bun- 14	PT/PTT/INR - normal
Cr - 1.1	UTox- neg
Glu - 98	UA- +leuk, - nitr, +epthi, +RBCs
Amylase- 43	Urine Hcg +
Lipase - 15	Beta Hcg- 6000
	Blood type A negative

ABG 7.32/41/350/8



What is the next step
in management?

Answer: Bedside Ultrasound



FAST Exam

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Transabdominal US

[Click Here](#)



Q: How do you interpret
these US findings?

Answer: Rupture Ectopic
Pregnancy



Ectopic Pregnancy- Presentation

- Vaginal bleeding (+/-)
- Abdominal pain
- + Pregnancy test
- *May* have hemodynamic instability



EP- Evaluation

- Bedside FAST to assess presence of intra-abdominal bleeding
- Formal ultrasonography if patient is stable



EP- Treatment

- Hypotension -aggressive hemodynamic resuscitation
- Early goal-directed use of bedside ultrasonography
- Early OB/GYN consultation



Q: What is the next step in management?

Answer: Consult OB-GYN for operative therapy



Objectives

Primary

- Recognition and management of non-trauma hypotensive patient
- Recognition and management of ruptured ectopic pregnancy (EP) causing hemodynamic instability or collapse
- Integration of bedside ultrasonography into an organized medical resuscitation deployment of teamwork behaviors

Secondary

- appropriate airway management
- appropriate circulatory support
- appropriate consultation and disposition



References

WG Gossman, SH Plantz Emergency Medicine Oral Board Review (4th Ed)McGraw Hill

Moore C. Ultrasound in Pregnancy. *Emerg Med Clin North Am* 2004; 22(3): 697-722.

