Episode 10

In this week's episode, the CPSers discuss their approach to abdominal pain.

Problem Representation
A 73-year-old man with a history of an abdominal aortic aneurysm presented with acute diffuse abdominal pain without peritoneal signs and was found to be tachycardic & hypertensive with an elevated creatinine.

Schemas
The CPSers' schema divides causes of abdominal pain into **4 buckets**: life-threatening etiologies, pathology of the intra-abdominal organs, pathology of extra-abdominal organs, and imaging-negative causes of abdominal pain.

Diagnosis
Placement of a foley catheter immediately produced *850 mL of urine* and the patient's symptoms resolved.

He was ultimately diagnosed with **urinary retention** secondary to severe BPH.

Teaching points

- Characterizing the **anatomical location** of the pain can provide clues to the underlying diagnosis.
- **Colitis** can cause diffuse abdominal pain and is most often caused by one of the "4 I's" – infection, inflammation, ischemia, or infiltration.
- In a study[1] of patients with surgically proven hollow viscus perforation, abdominal X-rays in the left-lateral decubitus position had a sensitivity of 98% for free air.

Clinical Reasoning Pearl

Reza introduced the concept of **hypothesis-driven questioning**.

As clinicians encounter clinical data, they generate numerous hypotheses. They then use *directed questioning* to **either refute or support** their hypotheses. This process is outlined in an article by Bowen in NEJM.[2]

For example
In our case, Reza was concerned about hypertensive emergency and directed his initial questioning around the possibility of end-organ damage.

References

1) Chiu YH, Chen JD, Tiu CM, Chou YH, Yen DH, Huang CI, Chang CY. Reappraisal of radiographic signs of pneumoperitoneum at emergency department. Am J Emerg Med. 2009 Mar;27(3):320-7.

2) Bowen JL. Educational strategies to promote clinical diagnostic reasoning. N Engl J Med. 2006 Nov 23;355(21):2217-25.