The Weekly Probe

16th March February 2017 **Volume 14 Issue 10**

Thanks – thankyou on behalf of Andrew, Leanne and the hospital exec for all your hard work over the last fortnight which has resulted in great improvements to the ETP
In comparison to February 2017 there has been :

~ 7.4% increase in overall ETP
~ 13% increase in admitted ETP
~ 6.2 % increase in discharged ETP

Well done, thankyou and keep up the good work!

THIS WEEK

LAST WEEK'S CASE – Geriatric Abdominal Pain

People like to have an explanation for why things happen. In the past when earthquakes occurred people blamed the gods and consider appeasing them with sacrifices. Similarly when people develop vomiting and abdominal pain the local Chinese restaurant or kebab shop gets blamed, as does constipation, a frequent initial label for many intraabdominal maladies.

However as mentioned last week in the discussion on geriatric trauma, we need to be ultra-cautious in this labelling of the elderly patient, and this includes those with abdominal pain. In particular our assessment needs to consider the subtleties and variability of presentations particularly in this group of patients.

Why worry ?

It has been reported that nearly ½ of elderly patients with abdominal pain will require admission, and ~1/3 will require surgical intervention. Due to the patient's age, comorbidities and surgical condition, this acute surgery has significant associated morbidity (10-15X elective surgery)) and mortality (3-5 X elective surgery).

As noted in up-to-date, the main pitfalls in this geriatric abdominal pain group are:

●Failure to conduct a careful and timely evaluation when overt signs of severe disease are absent (as signs may be less remarkable or absent) .
●Failure to appreciate high-risk features of abdominal pain.
●Over-reliance on laboratory studies.
●Failure to observe and reexamine or to arrange for reassessment of patients with pain of unclear aetiology, particularly patients at higher risk.
●Failure to perform pelvic and testicular examinations in patients with low abdominal pain.

Why does this happen?

Limitations of History taking – Firstly there may be hearing, vision or cognitive impairments which may alter the ability to remember, process and communicate symptom progression. Patients may underreport symptoms because of assumptions that symptoms are a consequence of an inconsequential illness (such as 'constipation"), that it is part of the normal aging process or for fear of loss of independence with placement and increased health care requirements.

Limitations of Physical Exam

There are higher rates of “atypical” presentations due to changes in all body systems (CVS, resp, GIT, musculoskeletal, immunological)

- Atrophy of abdominal wall musculature reduces guarding.
- Changes in peripheral nerve functioning lead to later and subtler presentation of pain.
- CVS - Less tachycardic response, “normal “ BPs may result in hypoperfusion in a previously hypertensive patient.
- Changes to the immune system- higher susceptibility to infection , reduced immunological response to the infection, decreased leucocytosis or absence of fever.
    - One study showed that 30% of patients > 80yo with an intra-abdominal abnormality requiring emergency surgery developed neither fever nor leukocytosis.
- These difficulties may be complicated by medications which may blunt / alter response to or signs of a disease – including B-blockers, Ca channel blockers, steroids , NSAIDS

Specific Pathology

We need to consider all potential causes of abdominal pain in the elderly. However the order of this DDx (especially the potential life threatening pathology) changes with age. Think of the nasties before deciding on lesser options. There is the old adage that “old people don’t get gastro” – they do but think of other potential causes.
These include:

- Vascular emergencies – AAA, extension of thoracic dissections, mesenteric ischaemia (arterial or venous), ischaemic colitis
    - AAA may not present with abdominal pain – pain may be localised to the back, flanks or groin
    - Ischaemic gut typically presents with pain out of proportion to the physical signs- emboli is the cause in ~ 50% of acute mesenteric thrombosis with associated risks (AF, valvular Dx, recent AMI, aortic Dx) ie many don’t have these risks
- Bowel obstruction- incarcerated hernia, volvulus (esp sigmoid), adhesions
    - Small and large bowel obstructions, usually caused by adhesive disease or malignancy, are more common in the aged and often require surgery.
    - Typical these symptoms may not manifest early in the presentation. Paradoxically, diarrhea may be present as a result of hyperperistalsis distal to the obstruction point.
    - Unique to elderly patients, it has been reported gallstone disease may contribute up to 25% of bowel obstructions (sounds a bit high- ed) compared with 2% in the general population (via gallstone ileus + focal inflammation / localised ileus)
    - In regards to LBOs it has been reported that diarrhea is seen in 1/5 of patients, and only ½ will report “constipation” or vomiting.
    - Acute colonic pseudo-obstruction, or Ogilvie syndrome is more common in elderly, debilitated patients, particularly those that are institutionalized or in prolonged hospital course.
- Biliary Dx – cholecystitis, cholangitis, pancreatitis
    - Common- The incidence of cholelithiasis increases with age to up to 33% by age 70, as does the severity of subsequent biliary tract disease in elderly patients.
    - Subsequently biliary disease is the leading reason for acute abdominal surgery in elderly patients (some studies report bowel perforation as the leading cause).
    - Gallbladder perforation, gangrene, emphysematous cholecystitis, ascending cholangitis, gallstone ileus, choledocholiathisis, and gallstone-induced pancreatitis are all more prevalent in elderly patients than younger patients.
    - Cholecystitis – one study of 168 patients > 65yo with acute cholecystitis confirmed at surgery found that:
        - 5% had no pain
        - 56% were afebrile
        - 41% had no increase in the WCC
        - 13% had no fevers and all tests were normal
        - jaundice was more common among the patients aged > 85 years
    - Pancreatitis- Medication use, gallstones, and alcohol use increase the risk of pancreatitis, and advanced age is an indicator of poor prognosis for this condition.
- Peptic – perforation and bleeding
    - High incidence of PUD which may be related to NSAID or steroid use + large incidence of Helicobacter- some studies note that 50-70% of geriatric patients being colonised. Bleeding is also more frequent in elderly with significant mortality.
    - In elderly patients, visceral perforation is often painless, with no rigidity on examination.

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- Bowel inflammation -The “itises” – diverticulitis, appendicitis, colitis
    - Appendicitis - In older patients with appendicitis, the initial diagnosis is correct ~ ½ of the time. Increased rates of perforation and mortality when compared with younger patients yet note that only 17% of elderly patients with perforated appendicitis had a classic presentation (RIF pain, fever, and raised WCC)
- Solid organ (spleen, liver) pathology – infarcts, haematoma / rupture (especially in the context of increased NOAC use), capsular distension
- Renal – pyelo, obstruction, infarcts

Remember not to ignore those issues above the diaphragm and below the groin. Specifically:

- AMI – up to 30% of AMIs present “atypically” with no chest pain- the most common group for atypical AMIs is the 65-75yo age group especially women.
- Other chest Dx – not infrequently PE involving the RML presents with RUQ pain and “pseudo-Murphy’s sign” / painful hepatic capsular distension may result from acute right heart failure / basal pneumonia may present with abdominal pain :
- Remember to examine the groin and scrotum

INVESTIGATIONS- Remember the limitation of certain pathology ruling certain conditions in or out such as WCC, CRP, AXR etc etc.
Constipation is a historical diagnosis (hard infrequent stools) not a radiological one- don’t get attached to the “faecal loading” on the radiology report. The PR will give you more proof than a AXR
Have a lower threshold to consider more aggressive Ix such as CT

DISPOSITION — Due to all these issues have a lower threshold for prolonged admission or admission. For those patients to be discharged provided clear, written instructions about potential danger signs and where and when to return for re-evaluation.

Refs:

Leuthauser A, Abdominal Pain in the Geriatric Patient *Emerg Med Clin N Am* 34 (2016) 363–375

Parker LJ et al, Emergency department evaluation of geriatric patients with acute cholecystitis. *Acad Emerg Med.* 1997;4(1):51.

Bugliosi TF et al, Acute abdominal pain in the elderly *Ann Emerg Med* 1990*; 19: 1383- 1386*

Up-to-date

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JOKE / QUOTE OF THE WEEK

Feudian slip by a radiologist who might be now accused of over-servicing

COMMENT:

No ultrasound abnormality found on to-day's scam.

Please forward any funny and litigious quotes you may hear on the floor (happy to publish names if you want)

THE WEEK AHEAD
Tuesdays - 14:30 – 15:30 Intern & JMO teaching -Thomas & Rachel Moore
Wednesday- 0800-0900 Critical Care Journal Club. ICU Conf Room / 14:30 – 15:30 Intern & JMO teaching -Thomas & Rachel Moore
Thursday 0730-0800 Trauma Audit. Education Centre / 0800-0830 MET Review Education centre / 1300-1400 Medical Grand Rounds. Auditorium.

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