

# Abdominal pain, constipation – expect the unexpected

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**Serious pathology is often initially misdiagnosed as constipation or gastroenteritis in elderly patients.**

As a GP also working shifts in the local hospital's emergency department, you know that very few cases are straightforward and uncomplicated, especially among older patients, and that potential litigation is an increasing problem. You recall a case in which the emergency department's policy of not discharging a patient with a markedly raised white cell count without consultation with senior staff may well have saved later litigation.

## The patient's presentation

The patient was a 70-year-old man who had been triaged as category 3 (non-life threatening – to be seen within 30 minutes) and whose presenting problem was recorded as 'Lower abdo pain for the past two days. Constipation and "blood in urine"'. Patient states these are all new problems'. The nursing assessment reported that the patient dressed 'eccentrically' and denied any medical problems, but had with him medications for diabetes, arrhythmia and fluid retention. The patient's vital signs, including oxygen saturation and temperature, were all normal. The urinalysis showed a trace of blood.

## History and examination

You introduced yourself to a white haired, slightly gruff man (whom you

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Professor Fulde is Director, Emergency Department, St Vincent's Hospital; Associate Professor in Emergency Medicine at the University of New South Wales, Sydney, NSW.

later find out used to be a prominent businessman and figure in society). Questioning revealed he was rather confused.

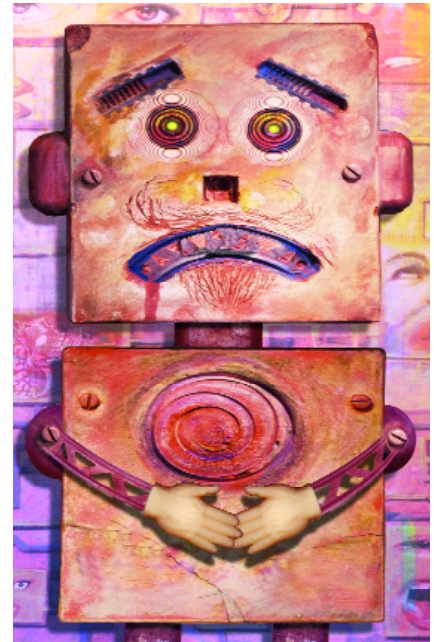
The history of the symptoms seemed relatively clear. The patient had been unwell and off his food for the past week. Two days ago he had begun having lower abdominal pain, had noticed haematuria and was feeling increasingly lethargic. He had visited his GP, who arranged tests and a urology referral for the next day. However, he had been unhappy to wait so had presented at the emergency department.

On questioning, the patient denied other symptoms such as fever, rectal bleeding and headaches, and gave a past history of congestive cardiac failure, atrial fibrillation and type 2 diabetes. He said he lived alone and had stopped drinking alcohol some time ago. Examination was difficult because the patient was obese, but was generally unremarkable apart from lower abdominal tenderness and mild right loin tenderness. It was noted that his rectum was full.

## The initial diagnosis

Your initial clinical impression was that constipation was causing the patient's abdominal discomfort. However, the routine laboratory tests that are performed on any patient being put into a bed in this emergency department showed this might not be so:

- a plain abdominal x-ray showed faecal loading of the colon
- a chest x-ray showed a large heart shadow (later found out to be due to



- previous alcoholic cardiomyopathy)
- blood tests revealed a leucocytosis of  $26.7 \times 10^9/L$  (normal range 4.0 to  $11.0 \times 10^9/L$ ), with neutrophils  $23.7 \times 10^9/L$  (normal range 2.0 to  $7.5 \times 10^9/L$ ).

The finding of leucocytosis in a patient who was not clinically febrile or septic suggested diverticulitis or urological pathology instead of constipation.

The patient was then examined by the duty surgical registrar, who thought he was not sick enough to need a precious hospital bed and could be sent home on antibiotics.

Following the emergency department's policy that a patient with a markedly raised white cell count (such as over  $15.0 \times 10^9/L$ ) should not be discharged without senior staff being made aware, the emergency staff specialist organised for the patient to be admitted, initially under himself. The consultant surgeon was called and arrived to review the patient an hour later.

## Further investigation

An abdominal CT was ordered and showed a saccular abdominal aortic

continued

aneurysm (infra-renal).

It was obvious that more details of the patient's past history were required and past medical records revealed that he had multiple colonic polyps, cardiomyopathy and excessive alcohol use as well as type 2 diabetes. Of note, two weeks ago he had fallen down some steps and sustained fractured ribs and a chest infection, which could explain his haematuria and abdominal and loin pain.

As there were no beds available on the wards, the patient initially remained in the emergency department. Despite his having said he had stopped drinking alcohol, he was monitored closely for signs of alcohol withdrawal using the alcohol withdrawal scale (Figure).<sup>1</sup> That evening he went into florid alcohol withdrawal. After careful assessment to ensure there was no other cause of the signs of alcohol withdrawal, he was given 10 to 20 mg diazepam orally every one to two hours as needed.

Consultations with many specialists followed in the search for the source of the patient's sepsis, including infectious diseases specialists, haematologists, cardiologists, anaesthetists, drug and alcohol specialists and neurologists.

**The final diagnosis**

A labelled white cell scan identified the area of sepsis as the saccular aortic aneurysm, hence the diagnosis of mycotic aneurysm was made. Initial blood cultures grew a streptococcus, which was thought to have originated from the chest infection after the patient's fall two weeks before. (Note that the infected embolus in a mycotic aneurysm usually arises from bacterial endocarditis but other sources are the lungs, as in this case, and bones; the organisms most commonly isolated are *Staphylococcus aureus*, followed by *S. epidermidis*, *Salmonella* and *Streptococcus*.)

**Treatment and outcome**

The patient needed antibiotics, central

**ALCOHOL WITHDRAWAL SCALE**

MRN		SURNAME			
OTHER NAMES					
DOB	SEX	AMO	WARD/CLINIC		

Please enter patient information or affix patient information label

**Record AWS hourly for 4 hours, then at least 4/24 for 48 hours.**  
 If total score is >5, increase observations to hourly. If total score is >6, notify medical officer

DATE: / /	TIME							
Item 1 Perspiration								
Item 2 Tremor								
Item 3 Anxiety								
Item 4 Agitation								
Item 5 Temperature								
Item 6 Hallucinations								
Item 7 Orientation								
TOTAL SCORE								
Sedation/Type/Dose								

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See over for explanations of items and scoring guide

Figure (above and right). The alcohol withdrawal scale.  
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lines and a one-week pre-op medical work-up before he was fit for major surgery.

The surgery was staged over two days

and involved resection of the aneurysm and complex vascular surgery (ligation of the proximal aorta and both iliac arteries and subsequent grafting) because

<b>Item 1. Perspiration</b>		Slight restlessness, unable to sit or lie still, awake when others are asleep	1	Distortions of real objects – aware these are not real if they are pointed out	1
No abnormal sweating	0				
Moist skin	1				
Localised beads of sweat on face, chest etc	2	Moves constantly, looks tense, wants to get out of bed	2	Reports appearance of totally new objects or perception – aware these are not real if pointed out	2
Profuse maximal sweating – clothes and linen are wet	4	Constantly restless, getting out of bed for no obvious reason, returns to bed if taken	3	Believes hallucination is real – remains orientated to place and person	3
<b>Item 2. Tremor</b>		Maximal restlessness, aggressive, ignores requests to stay in bed	4	Believes being in total non-existent environment, is preoccupied, unable to be reassured	4
No tremor	0				
Slight intentional tremor	1				
Constant marked tremor of upper extremities	2				
Constant marked tremor of extremities	3				
<b>Item 3. Anxiety</b>		<b>Item 5. Temperature</b>		<b>Item 7. Orientation</b>	
No apprehension or anxiety	0	Temperature of 37°C or less	0	Fully orientated in person, place and time	0
Slight apprehension	1	Temperature of 37.1°C to 37.5°C	1	Orientated in person, unsure of place and time	1
Apprehension or understandable fear, e.g. of withdrawal symptoms	2	Temperature of 37.6°C to 38°C	2	Orientated in person, disorientated in place and time	2
Anxiety occasionally accentuated to state of panic	3	Temperature of 38.1°C to 38.5°C	3	Doubtful of personal orientation, disorientated in place and time, short periods of lucidity	3
Constant panic-like anxiety	4	Temperature greater than 38.5°C	4	Disorientated in place/time and person, no meaningful contact can be made	4
<b>Item 4. Agitation</b>		<b>Item 6. Hallucinations</b>			
No sign of agitation – resting normally	0	(Spontaneous sense of perceptions of sight, sound, taste or touch for which there is no external basis)			
		No evidence of hallucinations	0		

- Alcohol withdrawal may be a life-threatening condition that requires medical intervention in clinical settings.
- The alcohol withdrawal scale is designed to alert medical staff to the possibility that the patient may be developing alcohol withdrawal and may be in need of appropriate sedation.

of the aneurysm's position.

Exactly one month after his presentation to the emergency department, the patient was discharged ambulant, without major sequelae. Rehabilitation followed.

## Conclusion

You know that cases of missed diagnosis are causes of litigation. You appreciate that sometimes a simple but significantly abnormal test result, although it may be nonspecific, can save the day by leading

to a diagnosis that would not have been discovered until later by good, reasonable clinical care.

This case reminds you that the label 'constipation' should be used with caution as a cause of abdominal pain, and should be avoided in those patients aged over 50 years. Elderly patients are often misdiagnosed as having benign conditions such as constipation or gastroenteritis when they actually have serious pathology not immediately obvious, leading to delayed diagnosis and potential malpractice litigation. **MT**

## Reference

1. Wodak A. Emergency presentations of drugs and alcohol. In: Fulde GWO, ed. Emergency medicine: the principles of practice. 4th ed. Sydney: Churchill Livingstone; 2004. p. 517-531

**DECLARATION OF INTEREST:** None.