INTRODUCTION

In this age of increasing diagnostic aids, the role of clinical skills is in danger of becoming less important. Hospital assessments are driven by complex blood, laboratory, and radiological investigations, with diagnosis often led by clinical pathology rather than clinical examination. The 'pan-investogram' is often unleashed early rather than clinical assessment determining the appropriate and carefully selected investigations. Results are perceived as objective whereas clinical examination findings are thought more subjective and less reliable.

THE PRESENTING PATIENT

I recall a 19-year old woman presenting one Monday morning with right iliac fossa pain (RIF) and some rebound and guarding, but no vomiting. There was no relevant gynaecological history, which can often muddy the waters, but I did arrange some immediate blood tests. She was asked to return to surgery that evening when the C-reactive protein (CRP) and white cell count (WCC) results would be back.

When she returned she said her pain was worse and she felt more unwell. The abdominal signs persisted and she had a pyrexia but no vomiting. I referred her to our Surgical Admissions Unit with some difficulty in the light of no supporting biochemical investigations — her CRP and WCC were both within the normal range.

In the Surgical Admissions Unit both her white count and differential were repeated and still found to be normal, as was her CRP. She was duly assessed and sent home. The next day she was worse so I repeated the blood tests and re-referred her back to hospital to the frustration of the surgical registrar. She was assessed on the day unit but repeated blood tests and an ultrasound were normal. Again, she was sent home.

Three days later on the Friday afternoon with the weekend looming she was still vomiting and not eating. I sent her back to

the hospital and on this occasion she was kept in overnight. On the Saturday morning she had her first consultant review. The patient heard the rebuke that the consultant gave his juniors for ignoring worsening clinical signs and being reassured by a normal white count and CRP. An urgent appendicectomy was arranged. Histology subsequently confirmed an acutely inflamed but unperforated appendix.

As it happened, I phoned the following morning and caught a word with the consultant. He was able to share (with some relief) that his diagnosis had been vindicated because a climb-down would have been embarrassing. He told me about another clinical sign he was able to elicit on the ward that morning after the surgery. Despite being day one post-op, she looked a much better colour (even from the nurses' station) and had eaten some food for the first time in 5 days. No blood tests were needed to confirm her recovery.

DID THE JUNIOR SURGICAL TEAM ACT INAPPROPRIATELY?

Although that would appear to be the case in this incident, they were, perhaps, somewhat unlucky when you review the literature.

A review in 2009 of 98 patients in Edinburgh with lower abdominal pain found a 100% predictive value of excluding acute appendicitis if both WCC and CRP were normal.¹ The authors concluded that patients with normal blood tests can be safely sent home. A review of a series of 259 patients from Wishaw, Lanarkshire, in Scotland in 2004 resulted in a less dogmatic view: the authors concluded that patients with RIF pain and a normal CRP and WCC were 'very unlikely' to have acute appendicitis.²

Finally, a retrospective study of 1169 patients from Peterborough and Stamford in 2013 found that there was a 5% chance of histologically proven acute appendicitis in patients with RIF pain and normal WCC

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and CRP.³ Their conclusion was clear: appendicitis remains a clinical diagnosis and normal inflammatory markers cannot exclude it.

The patient in question was from East Anglia so fortunately not bound by Scottish statistics.

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