

Acute abdominal pain in a 16-year-old woman: the pitfalls of sexual history

Introduction

It is well known in general surgery that taking a thorough sexual history is imperative in young women presenting with acute abdominal pain. In practice, however, this can be very difficult not only because of the lack of privacy in an examination cubicle, but also because of patients' embarrassment and reluctance to discuss their sexual habits in the presence of family members.

Discussion

Although post-coital vaginal laceration is a known complication of vigorous sexual

intercourse, resulting perforation is relatively rare (Hoffman and Ganti, 2001). The small pre-pubertal and the atrophic shrunken postmenopausal vagina is particularly at risk of this injury (Lal et al, 2001). In cases of undiagnosed vaginal perforation presenting with abdominal peritonism to the unsuspecting surgeon, more common diagnoses such as appendicitis or abdominal visceral perforation are often attributed as the cause (Paraskevides and Daw, 1990).

This case was unusual in that despite the severity of injury, the patient did not complain of vaginal bleeding, a com-

mon presentation of a vaginal laceration (Ahnaimugan and Asuen, 1980). Although investigations are not usually diagnostic, pneumoperitoneum may often be seen on abdominal or chest X-ray (Johnson et al, 2002) (not the case in this patient).

Post-coital trauma provides a diagnostic challenge to the clinician with injuries described in the literature ranging from vaginal trauma (as in this case), to ruptured corpus luteal cyst, round ligament tears, and even liver lacerations (McColgin et al, 1990). The latter of these injuries is generally missed because of the absence of local signs of trauma in the vagina. In contrast, external injuries may be evident either at the introitus or the vaginal vault, commonly in the posterior fornix or the lateral vagina, and therefore vaginal examination in these patients is of paramount importance.

This case also illustrates the difficulties in obtaining a sexual history in young women presenting with abdominal pain, particularly in the presence of family members. The diagnosis of post-coital vaginal perforation relies almost completely on history and examination, which is often best taken by an experienced doctor who is able to reassure the patient, while organizing the privacy needed to perform a thorough assessment. Obtaining the sexual history is the most valuable diagnostic tool in these cases. **BJHM**

Ahnaimugan S, Asuen MI (1980) Coital laceration of the vagina. *Aust NZ J Obstet Gynaecol* **20**(3): 180–1

Hoffman RJ, Ganti S (2001) Vaginal laceration and perforation resulting from first coitus. *Pediatr Emerg Care* **17**(2): 113–14

Johnson EK, Choi YU, Jarrard SW, Rivera D

Case Report

A 16-year-old woman presented to the authors' emergency department in the early hours of the morning with a 3-day history of cramping lower abdominal pain and watery diarrhoea, following a meal of reheated rice. The remainder of her history (including gynaecological history) was unremarkable.

Examination revealed that she was clinically dehydrated, had a tachycardia of 100 beats per minute, and although she did not display any signs of peritonism, she did have lower abdominal tenderness, not more so on any one side. Rectal examination was deferred by the patient. Chest and abdominal radiographs (Figures 1 and 2) were unremarkable, and initial blood tests revealed a white blood cell count of 3.4×10^9 /litre, with C-reactive protein of 156 mg/litre. Her urine did not contain nitrites, leucocytes or blood, and a beta-human chorionic gonadotrophin pregnancy test was negative. A diagnosis of gastroenteritis and tachycardia secondary to dehydration was made and the patient was admitted to hospital.

The following day her abdominal pain worsened and despite rehydration she remained tachycardic, developing profound swinging pyrexia (peak of 40°C). On examination, her abdomen was noted to be extremely tender and peritonitic below the umbilicus, with marked guarding on examination. She was immediately referred to both general surgery and gynaecology teams. The on-call gynaecologist was able to question the patient about her sexual history separate from her family, who until now had been with her at all times. At this stage, the patient admitted that she had sexual intercourse for the first time 4 days before admission, but denied any relation to the onset of symptoms. Vaginal examination was refused, but the patient did allow a rectal examination, performed by the general surgical consultant, revealing marked tenderness and fullness in the pouch of Douglas. Although the sexual history was noted, it was felt that appendicitis was the most likely cause for her pain, and the patient was taken to theatre for a diagnostic laparoscopy.

At laparoscopy, a large amount of pus was seen in the abdomen limiting visualization and necessitating conversion to laparotomy. Although a mildly inflamed appendix was seen and appendectomy performed, this did not account for the pus, and further careful examination of the abdominal cavity was carried out. In the pelvis and careful palpation of the pouch of Douglas revealed a traumatic, full thickness, 1 cm transverse tear of the posterior vaginal wall, through which the cervix could be felt. After discussion with the gynaecology team, this was treated with copious pelvic lavage and a carefully placed pelvic drain. Further questioning during the postoperative period revealed that the intercourse had been consensual but very painful. The patient had an uneventful postoperative recovery and was discharged after 7 days to be followed up in the gynaecology outpatient department.

Mr Akram George is Registrar, **Mr Omer Aziz** is Senior House Officer, **Dr Anand Shah** is House Officer and **Mr Steve Baxter** is Consultant Surgeon, Wexham Park Hospital, Slough

Correspondence to: Mr O Aziz, Clinical Research Fellow, Department of Biosurgery and Surgical Technology, Imperial College, St Mary's Hospital, London W2 1NY

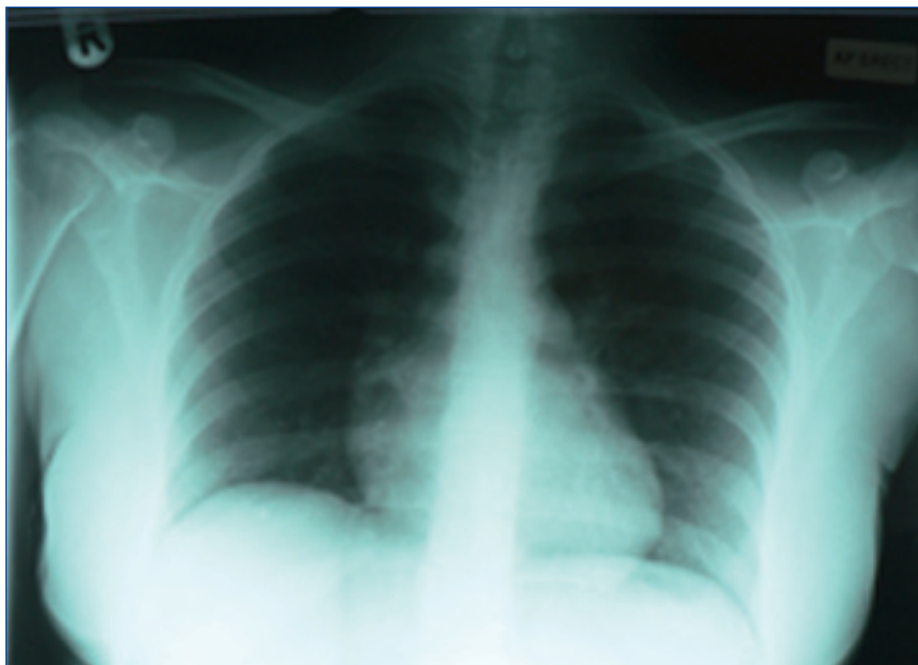


Figure 1. Erect chest X-ray showing no evidence of pneumoperitoneum.

(2002) Pneumoperitoneum after rough sexual intercourse. *Am Surg* **68**(5): 430–3
 Lal P, Mohan P, Sharma R, Sehgal A, Aggarwal A
 (2001) Postcoital vaginal laceration in a patient

presenting with signs of small bowel perforation: report of a case. *Surg Today* **31**(5): 466–7
 McColgin SW, Williams LM, Sorrells TL, Morrison JC (1990) Hemoperitoneum as a result of coital



Figure 2. Abdominal X-ray showing no extra-luminal gas or abnormal bowel.

injury without associated vaginal injury. *Am J Obstet Gynecol* **163**(5 Pt 1): 1503–5
 Paraskevaides EC, Daw E (1990) Severe post-coital puerperal vaginal tear. *Br J Clin Pract* **44**: 77–8

Gerry'll fix it – well, some of it

Sir Gerry Robinson spends a lot of time with his head in his hands. Or at least he did while he tried to sort out inefficiencies at Rotherham General Hospital ('Can Gerry Robinson fix the NHS?' BBC2, January 2007). A Labour donor and a businessman with a track record of effective management, he had 6 months to do it, and three hour-long programmes to tell us about it. There was about an hour's worth of material in there. The programmes needed abbreviating and editing far more than the NHS needs attention.

A constant theme was the power of the consultants and their resistance to change but, as ever, the dogma was that change is good. Sir Gerry decided that waiting lists was where the effort should be made, and concentrated on orthopaedic surgery, paediatric outpatients, ophthalmology and geriatric services. But, in between interviews with all and sundry and earnest waving of the hands by Sir Gerry and fly-on-the-wall camerawork at meetings and on ward rounds, what we needed were some facts.

A manager in paediatrics worked out that the waiting list could be reduced from 8 weeks to 2 weeks if the consultants sim-

ply saw two more patients per clinic. Sir Gerry likes ideas to come from the workforce, rightly thinking this much better and more likely to succeed than imposing grand schemes from above. He thought this idea was great. But we needed, and didn't get, some information. How many patients were seen in a clinic? How much time was allocated per patient? One nurse had already muttered rather darkly that some consultants didn't start their clinics on time, but was that true? The lead clinician eventually got all her colleagues to agree, but we saw none of the reasoning or argument.

Elective surgery featured a lot. One of the biggest problems in the NHS is the concentration on this easily measured hospital service, probably to the detriment of people suffering from chronic disease. So Sir Gerry wasn't trying to fix much of the NHS. A problem in theatres was patients not arriving in the anaesthetic room on time. I remember discussing that as the trainee rep in my first anaesthetic job in 1978. Credit to Sir Gerry; there was another triumph – but it doesn't need a genius to know that all-day lists are more efficient than half-day lists.

The opening sequence had seen Sir Gerry wandering the empty theatre suite on a Friday afternoon and weeping businessman's tears at such an expensive asset lying idle. There were allusions to consultants wanting to be elsewhere. In fact, the Chief Executive of the Trust had no money for those lists even if the consultants had been banging on the theatre doors to be let in, and in the last few minutes of the last programme Sir Gerry went to the primary care trust to ask why they wouldn't fund the extra session. We don't have the money, came the answer. Sir Gerry went to Secretary of State for Health Patricia Hewitt. We give them the money; they have to decide what to do with it, she said.

Sir Gerry was extremely rude about management consultants, and encouraged the Chief Executive to get out among the workforce more. He could probably have done that in an afternoon and spent the rest of the 6 months doing something more productive. **BJHM**

Dr Neville Goodman is Consultant Anaesthetist at Southmead Hospital, Bristol