MEDICAL PRACTICE

Clinics in General Practice

A case of right iliac fossa pain

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British Medical Journal, 1977, 1, 1066-1069

The trainee's problem

The patient is a 16-year-old girl and the elder daughter of intensely religious school-teaching parents. She herself has always seemed a fairly happy child and has recently been "converted" to the same beliefs her parents hold—apparently of her own free will and without regret. She attends the local comprehensive school and is making adequate progress. She is hoping to enter nursing, and her parents seem pleased about this.

Her medical history was fairly uneventful until about two years ago since when she has had recurring bouts of abdominal pain, sometimes in the centre of the abdomen and colicky, sometimes in the right iliac fossa and more constant. It is difficult to determine any pattern underlying these attacks, which have now produced some eight episodes of consultation. During one episode a year ago she was admitted to hospital as having possible acute appendicitis. Her pain settled quickly, and no operation was needed. No cause for her symptoms was found, and the discharge diagnosis was, perhaps unfortunately, mild acute appendicitis. Two months ago she was again seen at hospital on her own initiative at a weekend when another practice was covering but was not admitted. I saw her again yesterday with stabbing pain in the right iliac fossa. She is

exactly midway between periods, and this apparently was the case on her last visit as well.

Her mother had her appendix out when she was in her teens. I do not know whether it was normal or not, but she now has "colitis" instead. The mother wants her daughter referred to a surgeon "to get her appendixes out." I do not know what to do about this as I do not see any of our local surgeons being keen to operate in this case; would it be better to wait for another acute episode?

General practitioner's comments

In looking at the clinical problem of abdominal pain recurring over two years in a teenage girl, we must try to understand the overall set-up—the patient herself, her family, and circle of friends—rather than concentrate solely on the pain. Firstly, we have mother presenting with her daughter, and we are told that both parents have a strict religious background. In addition, there is the history in mother's case of appendicectomy as well as the sequel of colitis. Further inquiry into this might help us to know whether mother's operation cured her abdominal pain and whether or not she had proved appendicitis. Unfortunately this information may not be available since many surgeons do not tell their patients after appendicectomy whether or not the organ was inflamed. We know from several published studies that appendicitis is actually present in only about 60% of patients undergoing appendicectomy. In addition, it would help us to understand the anxiety level in this particular consultation if we knew the full history of appendicitis in this family, and if there are any undue fears of a complication such as peritonitis.

Secondly, we might look at the timing and onset of the girl's first and subsequent episodes of pain. On two occasions it has been midcycle so that mittelschmerz or other ovarian pain is a distinct possibility. The patient should keep a calendar for at least three months to focus on the time scale of her pain in relation to her menstrual cycle. The duration of the pain is

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relevant, and inquiry should be made into the existence of associated symptoms such as anorexia, vomiting, bowel upset, or symptoms of urinary tract disease. I am thinking here of appendicular colic, colonic spasm, a Meckel's diverticulum, small bowel colic from a congenital band, or possible urinary tract infection. Such a history ideally should come from the patient herself, though some elaboration may be needed from mother, especially if she was present at the first episode of pain.

Here it would be helpful to arrange for the doctor to be called during a further attack of pain especially to establish whether there is any local tenderness. Existence of abdominal or other pain in the girl's parents at the time of her first attack—for instance, migraine episodes, headaches, or colitis—might help us to understand the milieu in which our patient's pain first began. A doctor being consulted anew at the eighth or ninth episode of recurrent abdominal pain would be safe in concluding from the history and duration that no serious life-endangering organic disease is present.

Each clinician, however, must satisfy himself on the exclusion of an organic cause, and once the history of all episodes of her pain has been carefully recorded and its presentation observed, then a full clinical examination, which must include rectal examination, must be performed. After this it would be important to exclude occult renal or gastrointestinal disorders using a few tests including stool examination for occult blood and ova and parasites, full urine analysis on three occasions, blood count, and sedimentation rate. Intravenous pyelography may be justified later, but it is usually unnecessary to order a battery of ancillary investigations, the extent of which is so often inversely proportional to the clinical skills of the doctor concerned.

Before embarking on any of these investigations, it is wise to pause with both mother and patient to explain the case as one now sees it, and to commit oneself at this point to the likely outcome, perhaps with words such as "my reading of your story together with my examination lead me to believe that we are not likely to be dealing with appendicitis or other serious disease in your particular case." This is not to imply that the girl does not have abdominal pain, but it is important to emphasise that abdominal pain does not always signify appendicitis any more than a rash signifies measles or a headache meningitis. The mother must be advised that referral for appendicectomy as requested in this case would be unwise without stronger evidence than the single symptom of recurrent pain. The general practitioner trainee needs to know, however, that while laparotomy is not at present indicated, it may finally be justified, and may even cure some patients, despite negative findings. Pain anywhere in the body quite often is a symptom on its own and has been shown on many occasions to be connected with stress or depression, especially in girls in the 15 to 25 age group.

One must inquire here whether there is any cause for worry or psychological stress in this case and perhaps a separate interview would be most rewarding. One notes from the history that the girl has recently been converted to her parents' faith, and while this may have appeared to be her own wish, it is necessary to clear up any doubt that she was coerced into taking on the faith practised by her parents. As her parents are intensely religious and probably highly authoritarian teachers, how much stress operates in the home? The experienced general practitioner will have an advantage over the trainee and hospital doctor in this, as the parents are probably on his panel and he will have visited the home several times. Apart from domestic or parental stresses, she may be having a difficult period with her friends, boy and girl, and inquiries should be made about interpersonal stresses. It is also relevant to inquire into the closeness of the relations between her parents and herself as pain may sometimes be a form of currency to win comfort and consideration from otherwise alienated parents. Finally, a history about her performance at school would be very useful. Perhaps this could best be obtained by an informal discussion with her teachers, who are familiar with the girl both at work and play.

At least one further visit will be necessary in this particular

case once the laboratory tests are to hand, by which time her pain may well have resolved after a comprehensive explanation and reassurance about negative findings. If the parents or the girl are unhappy with the detailed explanation from the general practitioner, one might consider referral to a specialist for second opinion. Personally, I would not be inclined to refer this patient for a specialist opinion at the moment but, since time is on our side, request the patient to keep a calendar for three months that would include details of her menstrual cycle and any episodes of pain. During this waiting period it would be interesting to observe whether there is a disappearance of the pain after explanation and reassurance. If not then specialist referral may be wise, and the choice will lie between a consultant psychiatrist or general surgeon, the general practitioner's choice of consultant being critical at this point.

If the index of suspicion for possible intra-abdominal disease is present at all in the doctor's mind, a well-chosen general surgical opinion will probably be best as there are several examples of patients with organic disease being referred too hastily to psychiatrists, much to the chagrin of all concerned when organic disease is discovered later. On the other hand, if this is an example of family pathology in a psychiatric sense producing physical pain in one of the offspring, then the family doctor is in the best position to handle the case, while always being prepared to discuss it at a psychiatric case conference and glean help from his colleagues to help him further with diagnosis and appropriate management.

Consultant psychiatrist's comments

I suspect that you have recently attended a seminar on "whole person" medicine and are being carried along on the crest of the wave of this seductive concept. Possibly your training course is even more *avant-garde*, and you have been encouraged to diagnose "ill families," in which the total pathology of parents and children is concentrated into the symptoms of one scapegoat member. The diagnosis of family pathology gives a spurious absolution from the need for diagnosis of the actual patient, and clearly there is considerable doubt about the diagnosis of this girl's pain. You suspect that the pain may be appendicular and yet I feel that you are sceptical about this; the fact that you draw attention to the relation between the pain and her menstrual cycle indicates that you suspect that the pain may be ovarian; in this case you are blunting Occam's razor somewhat, as the ovary could account for the right iliac fossa pain but not for the central colicky pain.

The fact that you chose to present the case to a psychiatrist suggests that you think the pain may be "functional." If it is indeed functional there are three possibilities: malingering, hysteria, and psychosomatic disease. But malingering and hysteria are extremely unlikely in this case, and so we are left with the possibility of a psychosomatic condition. The only psychosomatic illness that would fit the symptoms is the irritable bowel syndrome, which used to be called mucomembranous enterocolitis, mucous colitis, spastic colon, irritable colon syndrome, and nearly 100 other names.

It is a common condition and one French physician was able to collect over 1000 cases in a few seasons at a fashionable watering place. The mother's colitis suggests that the girl may have a constitutional predisposition to the irritable bowel syndrome. I do not know of any systematic genetic studies, but certainly I have encountered one pair of identical twins who were concordant for the condition. Other points in favour would be an alteration in bowel habit, the passage of mucus with the stool, and the typical tender hosepipe colon on palpation of the abdomen.

Thus there are two likely possibilities in the differential diagnosis. One is chronic or recurrent appendicitis, and the other is an irritable bowel syndrome. Action will depend on which of these you favour and this would be determined by the elements of history which you have not yet presented—the

findings on examination and the findings when the girl was admitted to hospital. If you favour an appendicular cause for the pain I would recommend her referral to the surgical team that diagnosed acute appendicitis with a request for removal of her appendix. If, as I suspect, your opinion veers toward irritable bowel syndrome you should refer the patient to a gastroenterologist because irritable bowel syndrome is a diagnosis by exclusion (of other conditions such as ulcerative colitis, volvulus, etc). It is usually accepted that irritable bowel syndrome should not be diagnosed until the patient has had a full blood count, sigmoidoscopy, barium enema, and examination of stool for parasites and ova. These investigations may also produce positive evidence of functional disorder of the bowel such as the "string sign" on the barium enema film and inflammation and friability of the colonic mucosa on sigmoidoscopy.

The psychological management depends on what happens next. If an inflamed appendix is removed then any thought of psychological management of the girl or the family would be gratuitous interference.

If appendicular and other disease is excluded and irritable bowel syndrome is diagnosed then psychiatric treatment should be a part of her management. Experimentally psychological stress can disrupt the rhythmic haustral contractions of the large bowel and may induce colonic pain. If irritable bowel syndrome is diagnosed the concepts of whole-person medicine and family pathology become relevant. It would be a good idea to sit down with the girl and discuss her home and her school, her social life, and her sex life. Possibly she is worried about pregnancy and needs contraceptive advice.

She may well be having difficulty with her mother. Her mother's colitis may be associated with depression and anxiety that is having an adverse effect on the rest of the family including the girl; possibly she is overworking and should cut down her hours of teaching or her religious activity. You clearly find the mother an irritating woman. Your reaction to her, which is sometimes called "counter-transference strain," accounts for the derogatory implications of your word "instead" and your innuendo that in spite of being a teacher she is under the impression that the human body contains more than one appendix. If you find the mother a strain it is quite likely that the girl does too, although she may not be willing to admit this to you. It would probably be useful to have a talk with the father, and this might give you quite a different idea of the family and the relation between the mother and daughter. If you find yourself getting out of your depth with the girl's personal problems or with the interrelations within the family then you might well refer her for individual psychotherapy or alternatively refer the whole family for family therapy. Whether you choose a child psychiatrist, an adolescent psychiatrist, or an adult psychiatrist will depend very much on the interests and abilities of the consultants in your area.

Apart from the above considerations one factor in this case requires that you send the girl to hospital either for operation or for physical investigation—that is, the mother is clearly a dominant and strong-willed woman and knows that appendicitis has been diagnosed. Psychiatric treatment at this stage, either by yourself or by a psychiatrist, would be sabotaged until mother is "converted" by a god-like surgeon or gastroenterologist.

Consultant surgeon's comments

The main point to be determined is whether the girl is suffering from recurrent attacks of appendicitis, by which I mean acute appendicitis. Apart from eight attacks in two years, all resolving quickly and spontaneously, being rather unlikely, it is helpful to consider whether her symptoms can be related to what we know about the pathology of acute appendicitis.

When inflammation in the appendix begins, with or without obstruction to its lumen, pain is felt somewhere other than in the right iliac fossa, and it may be steady or colicky. Localisation

of pain to the right iliac fossa, usually with tenderness and usually constant, implies spread of inflammation to the parietal peritoneum. From then on, unless spontaneous recovery occurs—which is not all that often—or appendectomy is performed, the disease progresses to the formation of a local abscess or general peritonitis. Clearly the girl has never had an abscess or peritonitis. But could she have had eight attacks of acute appendicitis that all resolved, even though this sounds very unlikely?

In some of her attacks the pain has been in the right iliac fossa and constant rather than colicky, which means, if a diagnosis of appendicitis is to be sustained, that on more than one occasion the disease has progressed to the stage of local peritonitis and then resolved without any specific treatment. This seems highly improbable, to say the least. But what makes it yet even more improbable is the length of time that such a pathological process—inflammation of the appendix, local peritonitis, spontaneous recovery—must take. On the occasion when she was admitted to hospital as a possible case of acute appendicitis, her pain settled quickly, too quickly one assumes for anyone to have believed that an inflammatory process was responsible, although the diagnosis on discharge was "mild" acute appendicitis. Her doctor, probably thinking along the lines described above, obviously regards this diagnosis with commendable scepticism. Whether or not mild acute appendicitis can, in fact, occur is of course open to argument, which can proceed along several lines—for instance, whether the mildly inflamed appearance of an excised appendix indicates that the infection was mild or that the appendix was removed early in the course of the illness. Here again the time factor is important.

Fortunately we need not consider the possibilities of subacute or chronic appendicitis as these are nowadays seldom diagnosed.

From the clinical story so far, then, we may conclude that she is not suffering from any form of appendicitis. But having said this it is possible to make quite a good case for persuading a surgeon to remove her appendix on domestic grounds, to relieve some of the pressure from her mother on the doctor and perhaps on the girl herself. This course of action often proves to be incidentally expedient with younger children when a registrar quite genuinely thinks that a child has appendicitis and removes a histologically normal appendix, which he thinks, again quite genuinely, looks congested or mildly inflamed. Subsequent bouts of abdominal pain are viewed with much less alarm by both parents and doctor.

If this course of action were to be adopted it would probably be wise to try and persuade an experienced surgeon to perform the operation, so that he can state authoritatively, once and for all, that the pelvic organs and terminal ileum are normal, which he will be able to do without making a large and unsightly paramedian incision. Alternatively, if her doctor thinks that appendectomy would be domestically advantageous, he could wait, as he suggests, for another acute episode and send her to hospital then. There is a very good chance indeed that at some time, somewhere, somebody will remove her appendix if she continues to have pain, especially if she becomes a nurse.

A possible disadvantage of this course of action is that subsequent attacks of pain may be suspected of being due to obstruction from adhesions, but this will not be too likely without supporting clinical or radiological features. It is more likely that mother, having been proved triumphantly right, will ascribe further pain to colonic irritability (colitis), which may well be the case. The girl will then be, if she is not already, just like her mother, with similar manifestations of abdominal distress from time to time.

I suggest this disingenuous and perhaps hypocritical approach to the problem strictly for consideration by others. Personally I doubt very much whether I would agree to remove a young girl's appendix just to satisfy her mother; or rather I think that I doubt it, because I no longer have to make such decisions about young girls' appendices and can take a detached view. But I would certainly not try very hard to dissuade from operating a surgeon who saw the girl during an acute episode and sincerely

believed that she had early (early—not mild) acute appendicitis.

What, then, is the cause of her abdominal pain? It is much more difficult to answer this question than to say that she has not got appendicitis. Stabbing pain in the right iliac fossa suggests caecal spasm and, if she is thin, the contracted caecum or ascending colon may be palpable and tender. Pain from an ovary is not very likely unless it occurs consistently midway between periods, although it is strange that this syndrome is so much commoner in young women than in young men. Crohn's disease is just a possibility but very unlikely if she is physically well and has normal bowel habits, and it would probably not be very rewarding to do barium studies. If extensive investigation seems called for it would have to include intravenous pyelography, but central abdominal pain hardly makes one think of a renal origin and she surely is not suffering from two painful disorders. It really seems as if we are left with the old choice between waiting or looking to see.

My own bet is that she will have her appendix removed and never thereafter trouble her doctor again.

Postscript to the problem

Eighteen months have passed since this issue was raised. The girl has indeed had a normal appendix removed but continues to consult more often than most girls of her age—now with irregular diarrhoea and vomiting. The clinical picture is fairly certainly that of the irritable bowel syndrome, although this has been diagnosed without referral for exclusion of other disease. She has declined contraceptive advice but, since the most lengthy and frank discussion of her emotional problems, has consulted four separate doctors in the practice once each, two of them being successive trainees. We have not seen her mother since the appendix operation.

Letter from . . . Chicago

Return of the hangman

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British Medical Journal, 1977, 1, 1069-1070

The hangman returned to America this winter after an absence of nearly 10 years, but only figuratively speaking: for the condemned man was not hung by the neck but strapped into a chair and shot at sunrise. A murderer of two innocent men, he had achieved widespread publicity by choosing to die rather than live out his days in prison, and by being duly resuscitated from a hunger strike and two suicide attempts so that he could be properly executed. Interminable appeals and legal entanglements delayed the execution and heightened the suspense. But at last a squad of five gunmen administered the death rites, the men having been selected from a much larger group of all too eager volunteers. Five guests only were invited to the ceremony. The gunmen hid discreetly behind a parapet, their rifles only sticking out through holes in the canvas. Problems of conscience were avoided by issuing a blank cartridge to one of the men. Even the television cameras were excluded from the affair. And since the reporters were not allowed to rush into the room to examine the four bullet holes in the back of the chair until the body was removed, the public had to be satisfied with sketches of the scene and pictures of the empty chair.

Pious opponents of capital punishment called the episode a barbaric, degrading, and morbidly disgusting spectacle. Some argued that executions, far from being a deterrent, may actually incite people to acts of violence; that capital punishment is discriminatory since more poor people and ethnic minorities end up on death row; and that innocent men may mistakenly

be condemned and executed. Yet, with the crime rate soaring to unprecedented heights, and with violence against strangers by far exceeding crimes of passion, the polls show that some 65% of Americans now favour the death penalty. In this they are supported by the analysis of an Illinois university professor who estimates that every execution will prevent some 150 murders. And the mood is reflected by the legislator who proclaimed that the time has come to "strike fear into the hearts of the mad dogs who have declared war on society."

The death penalty had not been invoked in the United States since 1967, when Luis Monge was put to death in Colorado's gas chamber for murdering his wife and three of his 10 children. In 1972 a liberal US Supreme Court ruled that death penalty statutes, as applied by most States, were unconstitutional because they placed too much discretion in the hands of juries and judges. In 1976, however, a more conservative court decided by a majority of seven to two that the death penalty was not an inherently cruel and unusual punishment, provided that the States observed certain guidelines and allowed judges and juries to take into consideration mitigating and aggravating circumstances. As a result of this ruling several States are now revising their penal codes to allow capital punishment for particularly heinous crimes. Some 600 condemned men and women are presently waiting on death row throughout the country, and many are likely to be executed as opportunities for appeal are exhausted. Only time will tell whether such extreme measures will stem the rising tide of violence in our society. Meanwhile, it is unfortunate that the more civilised and probably more effective measure of banning handguns still remains in abeyance.

Public drunks

By contrast, however, society is adopting a more civilised approach towards the public drunk; and in July 1976 Illinois