The abdominal wall test

Sir

As practitioners in the accident and emergency department, we will see a greater range of causes of abdominal pain than any other doctor, ranging from the life-threatening to the trivial and self-limiting. Your correspondent’s account of a case of rectus sheath haematoma is an illustration of this (Rahman, 1987). The diagnosis was made subsequently by Ultrasound, but specialist investigations of this nature are often not available to accident departments and, if they are, then unavailable to anyone outside ‘office hours’ in anything other than the severely ill patient. Thus, we have to depend on our clinical assessment and this is one situation where considerable experience is required. Most of these cases will be seen initially by relatively inexperienced medical staff, and so clinical guidelines need to be simple, unequivocal and reliable to be of help. One example of this is the abdominal wall test.

The abdominal wall test is a simple and reliable sign which is certainly neglected by surgical textbooks and deserves to be better known. It is particularly useful in the assessment of the well patient with obscure but localized abdominal pain. Here the examiner sits and palpates the abdomen until the tender area is found. While the hand rests in this area, the patient is asked to tense the abdominal muscles, either by attempting to raise the legs from the couch or by crossing the arms in front of the chest and attempting to sit up. While the muscles are tense, the examiner again palpates the tender area. If the tenderness is reduced, the test is negative; if made worse, the test is positive. Logically, it can be seen that an intra-abdominal cause would show a negative test since the parietal peritoneum and viscera are protected. A positive test indicates a cause in the abdominal wall. It can also be seen that the history will be of a pain made worse on coughing and movement which traditionally is said to indicate peritonism. Such pain can, however, arise from the abdominal wall and be quite innocent (as shown by the case with the rectus sheath haematoma).

In a prospective series of 120 patients admitted as an emergency with localized abdominal pain (Thomson et al., 1977), 24 patients were abdominal wall test positive. Of these, 13 settled with conservative treatment, 10 underwent laparotomy at which no intra-abdominal cause was found, and one patient had a gangrenous appendix lying in contact with and causing oedema of the overlying anterior abdominal wall. In the latter case, there were sufficient other clinical features present to enable the correct decision to be made. There were 66 patients with acute appendicitis and two with appendix abscesses, all of whom were abdominal wall test negative.

In most cases, the exact cause will remain obscure. Suggestions have included muscular strain, viral myositis or nerve entrapment, but a history of trauma or malaise, or of paraesthesia, will usually be absent. The test, however, would be unequivocally positive in a rectus sheath haematoma. Regardless of this, it can be seen that a positive test in an otherwise fit patient with localized abdominal pain, particularly if it is ‘finger
point' rather than diffuse, is a reliable indicator of innocent abdominal contents. As a caveat, it should not be used in the very young or old, as it is then open to misinterpretation, and is of no use in generalized abdominal pain.

In the above series, 19% of the patients were positive and presumably all except one would have settled without laparotomy (that single case emphasizes the importance of considering the entire clinical picture). Since these patients had already been ‘filtered’ through the general practitioner or the accident department, the proportion that we should expect to see in our own departments would be higher. Therefore, the use of this test in the cooperative patient with localized abdominal pain and no associated features should reduce the need for more sophisticated diagnostic techniques and the pressure on in-patient beds.

I should like to thank Mr R. Thomson for introducing me to this test.

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REFERENCES


Re: The use of the accident and emergency department

Sir

The problem of inappropriate attendance at accident departments (Driscoll *et al.*, *Archives of Emergency Medicine*, Volume 4, Number 2, June 1987, pp. 77–82) is one shared by most inner-city departments. I agree that it is difficult to reverse the trend but I also believe that patients with general practice illnesses should be seen by doctors trained in general practice. I suggest two solutions.

Firstly, general practice deputizing services should be formally organized by health authorities and run in such a way that properly trained doctors provide a fast and efficient service. Secondly, inner-city departments should have a section staffed by a general practitioner where patients with general practice illness could be seen. This section would be open outside normal surgery hours and until 10 pm and would be staffed, by rota, by local general practitioners.

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