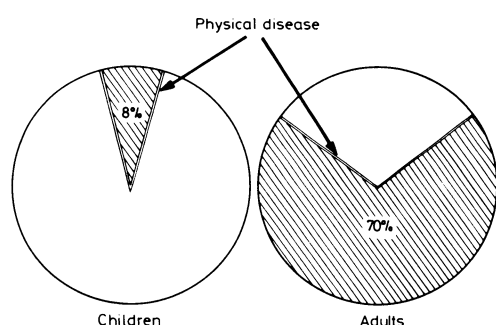


*ABC of 1 to 7*

H B VALMAN

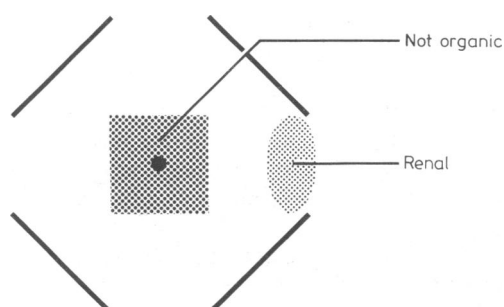
## RECURRENT ABDOMINAL PAIN



Recurrent abdominal pain, which is also called the periodic syndrome or abdominal migraine, is diagnosed on the basis of at least three episodes of pain in over three months. At least 10% of schoolchildren have recurrent abdominal pain. The symptoms usually begin at the age of 5 years, though they may appear as early as 2 years or as late as 13 years. In a study of 100 children investigated in hospital only eight were found to have organic causes for the pain, including three with renal problems. In contrast, 70% of adults with recurrent abdominal pain have a demonstrable physical cause: most have a peptic ulcer, which is uncommon in children, or disease of the biliary tract, which is extremely rare in childhood.

In children with recurrent abdominal pain the commonest emotional state is anxiety and the commonest trigger for attacks of pain is events at school.

## History



Details of the first attack may be remembered with special clarity and may help to elucidate the cause. Two-thirds of the children have central abdominal pain, which is usually not organic in origin, but pain in other sites may have a physical cause. Pain on the left side of the abdomen suggests renal disease. Aggravating and relieving factors should be considered but the type of pain is usually not helpful, and very severe pain causing the child to cry out may still derive from emotional causes. The duration and frequency of the pain and whether it occurs on a particular day of the week, at weekends, or holidays are all important.

About two-thirds of the children have vomiting with the pain and 10% have diarrhoea during attacks. Twenty-five per cent have headaches and 10% pain in their limbs between attacks. Pallor during an attack is noticed in half the cases, and a quarter of children are sleepy after an attack.

## Emotional and social factors



In the parents and siblings of the children with recurrent abdominal pain the incidence of similar complaints is nearly six times higher than in those of controls. The family member most often affected is the mother. There may be a history of domestic difficulties or parental illness, including depression. Parents should be asked what sort of child their son or daughter is and what disorder they particularly fear in their child. Their reactions to the child should be observed during the visit. The child's attitude to the rest of his family and his friends may need to be explored. The parents must be encouraged to say what they feel, and apparently irrelevant details about everyday life at home and at school may be of diagnostic importance.

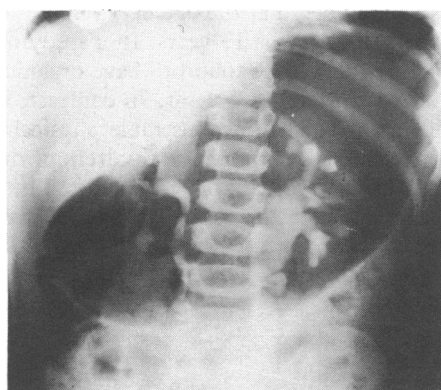
## Physical disease



Microscopy

Culture

Clinitest



Parents as well as doctors are worried about missing physical disease in children with recurrent abdominal pain. A thorough initial clinical examination reassures the parents and should be repeated during an attack if an opportunity arises. For most children all the investigations can be arranged at the first visit so that long-term management can be planned at the second interview.

A specimen of urine should be sent to the laboratory for examination by microscopy and culture from *every* child with recurrent abdominal pain. If the pain is central and there are no abnormal signs no further investigations are needed. Pain in the lateral part of the abdomen demands an intravenous pyelogram. The management of upper abdominal pain is controversial but if it does not improve after two months of observation it may be necessary to exclude a peptic ulcer by barium meal examination and chronic pancreatitis by radiographs of the abdomen for calcification.

Recurrent abdominal pain and pronounced weight loss suggest the possibility of Crohn's disease but confirmation may necessitate sigmoidoscopy, barium studies, and possibly colonoscopy.

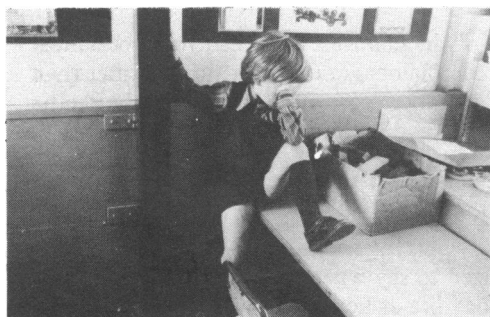
Abdominal distension during episodes of pain may be due to volvulus with associated malrotation of the gut, and a plain radiograph of the abdomen with the patient erect during an attack is needed. A barium study may help to confirm the diagnosis. If pain is localised to the right hypochondrium investigations for gall bladder disease should be considered.

Recurrent episodes of acute appendicitis are a rare cause of recurrent abdominal pain.

## Discussions with child and parents



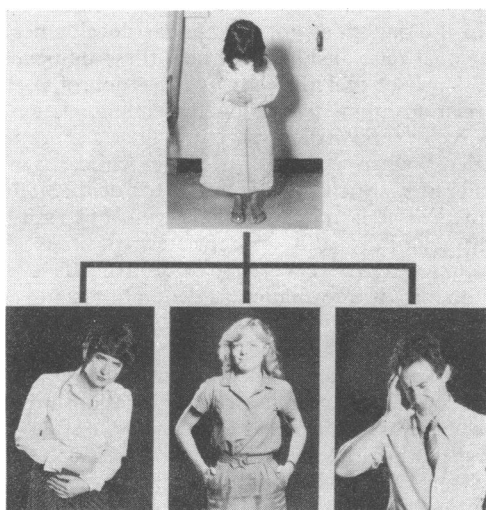
Ideally the child should be seen by himself as well as with both parents at the first visit to explore his feelings about his abdominal pain. At the end of the first interview the most likely diagnosis is discussed with the whole group. If the pain seems to have an emotional origin it is best to explain that a large proportion of children as well as some adults have abdominal pain which has no organic cause but which is precipitated by emotional factors. It is important to mention that the child does experience pain, which may be severe, and that he is not pretending. It is helpful to explain that the physical and emotional causes are being explored together and that the child will be reviewed regularly until the pain disappears or has considerably improved. The parents should be asked for their permission for a school report to be requested.



At the second visit it is essential to convince the parents that the likely causes of organic disease have been excluded. The parents may have recollected important details as a result of promptings at the previous visit, or the teacher or family may have discovered a remediable factor at school. The child may be bullied at school, or chance remarks which appear innocuous to a teacher may have a devastating effect on a child. Alternatively a child may feel very hurt by not being given praise when he thinks it is due. Children are very sensitive to injustice and many treat their teachers as gods. The excessive ambition of parents, excessive homework, or going to a large middle school after a small village school may all produce severe stress. Parental discord or separation may be bewildering to a small child. The child who behaves superbly in class may show his mother the results of his pent-up tension.



## Prognosis



By guidance the parents can be shown how to modify the child's environment to help his adaptation. Practical and tactful advice is needed for the inadequate mother who makes excessive emotional demands on her child or for a father who loads the child with his own ambitions. In advising them it is helpful to try to discover why they feel that way. The child cannot be insulated from all stresses but sources of excessive tension should be removed.

Children who have pain every day may need to be admitted to hospital for a short period to take the stress off the family. The object is to determine whether changes in environment will affect the pain, and the opportunity should not be used to carry out an excessive number of investigations. The pain usually abates in hospital, though not always, but may become worse again immediately after the child returns home.

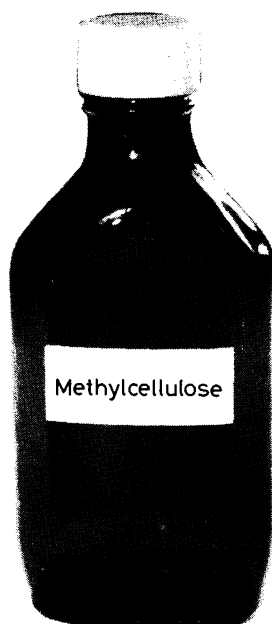
Children with recurrent abdominal pain of emotional origin may also develop physical disease such as acute appendicitis, and if the pain lasts continuously for more than eight hours the child should be seen again by a doctor as an emergency.

A high proportion of adolescents and young adults who have attended hospital with recurrent abdominal pain in childhood are later found to have continuing symptoms. In one study about a third were found to have continuing attacks of abdominal pain. One-third were completely free of symptoms, while in a third abdominal pain had ceased but other symptoms such as recurrent headache had developed. Recurrent abdominal pain in childhood may not be as benign as previously believed but may delineate a group of children who find it difficult to adapt to their environment both as children and as adults.

The photograph of the child at school is reproduced by permission of Camera Press.

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## Anal fissure



An anal fissure causes severe pain on defecation because the lesion is stretched as the stool is being passed. Fresh blood may be seen on the surface of the stool. The mucosal tear, which may occur at any point on the circumference at the mucocutaneous junction of the anus, may be visible but the lesion may be very small or too high to be seen. Fissures are usually the result of trauma to the anal margin by the passage of hard stools. This constipation may be the result of inadequate intake of fluid during a febrile illness. As a result of the pain the child resists defecation and the stools become hard and the symptoms more severe. Without treatment chronic constipation sometimes occurs with overflow diarrhoea.

The stools are kept soft by ensuring an adequate fluid intake and the addition of methylcellulose liquid (Cologel) 5 ml three times daily for a month and daily for a further month. The child then regains confidence that defecation will not be painful. It is essential that this course of treatment should be completed as a fissure takes a long time to heal. Surgical excision of the fissure or stretching of the anus is never needed if medical treatment is adequate.

A rectal polyp is a rarer cause of rectal bleeding, but the absence of pain helps to distinguish it from a fissure.