recently reported by Goldstone.[3] Of the 34 patients operated on, 13 had myeloid metaplasia, four leukaemia, two lymphoma, two cysts, one Gaucher's disease, and in nine the splenomegaly was said to be "non-specific." Both symptoms and the haematological abnormalities were improved in 31 cases (90%). In patients with leukaemias and lymphomas removal of large spleens is said to reduce the toxic effects of subsequent radiotherapy and to minimise its effects on the lung and kidney.[4-6] There is some controversy, however, on whether splenectomy does increase patients' tolerance to chemotherapy.[7-9]

In children there is a well-recognised increased susceptibility to infection after splenectomy,[10 11] and many believe that antibiotics should be given for two years postoperatively. Even in adults there may be a considerable morbidity associated with splenectomy, and mortality rates as high as 15% have been reported in some series. Thrombocytosis may be a problem in the first few weeks after operation. Both morbidity and mortality seem to correlate with the size of the spleen, so that once symptoms develop operation should be advocated early rather than late.

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The grumbling appendix

"The very existence of chronic appendicitis is often a subject of controversy, yet appendicectomy for this condition is one of the most commonly performed surgical operations." Practice has changed since this sentence opened an article in the *BMJ* in 1954,[1] and there must be many surgical units in which nowadays planned appendicectomy is rare. True, the existence of chronic appendicitis is still a subject of controversy but now there are many more sceptics than believers. At the same time, surgeons who work with children and adolescents know that recurrent abdominal pain is a common complaint and that many are referred to the outpatient departments as possibly having a "grumbling appendix." Family doctors may or may not believe in this entity, but parents do, and it causes them much anxiety.

Recurrent appendicitis is an established and recognisable condition. Patients who have had simple drainage of an appendicular abscess may be readmitted with another attack of acute appendicitis while awaiting interval appendicectomy.[2] The essential point in the diagnosis is that the history begins with an attack of acute appendicitis. If, after an acute illness which sounds like acute appendicitis (or one which was thought to be mild and was treated conservatively), the patient goes on to complain of recurrent episodes of abdominal pain, anorexia, and general malaise, and shows tenderness over the appendix, then it is right to advise a planned appendicectomy. Not infrequently in these circumstances the appendix is found to be inflamed.[3 4]

Patients who complain of recurrent abdominal pain but in whom there is no hint of a previous attack of appendicitis are unlikely to suffer from recurrent appendicitis. In 1940 Alvarez[5] took a close look at this group, and provided conclusive evidence that appendicectomy based purely on a supposition that the appendix might be chronically inflamed was useless.

The lesson is that far and away the most important investigation in any patient with recurrent abdominal pain is a thorough history—which must include not only a detailed description of the episodes of pain but a full past medical history, a family history, and, very often, a social history as well. Apley[6] has shown how rarely recurrent abdominal pain in childhood is due to an identifiable organic cause, and has formulated the useful aphorism "The further the localisation of the pain from the umbilicus, the more likely is there to be an underlying organic disorder."

The great majority of children with recurrent abdominal pain rub their hands across and around the centre of the abdomen; they rarely miss a meal; and they show few or no abnormal abdominal signs. Appendicectomy will not help this group. On the other hand, a few children present with recurrent episodes of pain in the right iliac fossa accompanied by vomiting and anorexia, and, if seen in the attack, are tender in the right lower abdomen. Although these attacks clear quickly with rest and a fluid diet, they are much more worrying. It is essential to examine the urine microscopically and by bacteriological culture. Moreover, generally the doctor would be wise to order an intravenous pyelogram, because children with hydronephrosis may present in a similar way, and a careful history may suggest other relevant investigations. If the results of all these are negative, the attacks continue, and there are clear signs that the appendix may be the site of recurrent mild inflammation, then appendicectomy may undoubtedly be curative—so far as symptoms are concerned —and may well show inflammation macroscopically and microscopically. These cases are, however, very uncommon. Finally, recurrent pain in the right iliac fossa in adolescent girls and young women is an even more difficult diagnostic problem, though here laparoscopy has a useful part to play in the investigation.[7]

Undoubtedly surgeons were right in reacting against the wide use of planned appendicectomy as a treatment for a whole range of abdominal complaints. Even so, possibly too many such operations are still being done. In Britain in 1975 about a fifth of all appendicectomies were non-urgent[8]—amounting to nearly 20 000 operations per annum—and only a small proportion of these can have been planned appendicectomies after drainage of an appendicular abscess. If some surgeons[4] can keep their "cold" appendicectomy rate to well under 10% of all appendicectomies, this suggests that others should cast a more critical eye on many patients whom they are advising to have this operation. In particular, they should remember that it is useless to undertake cold appendicectomy without the clearest evidence of preceding appendicular inflammation.

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