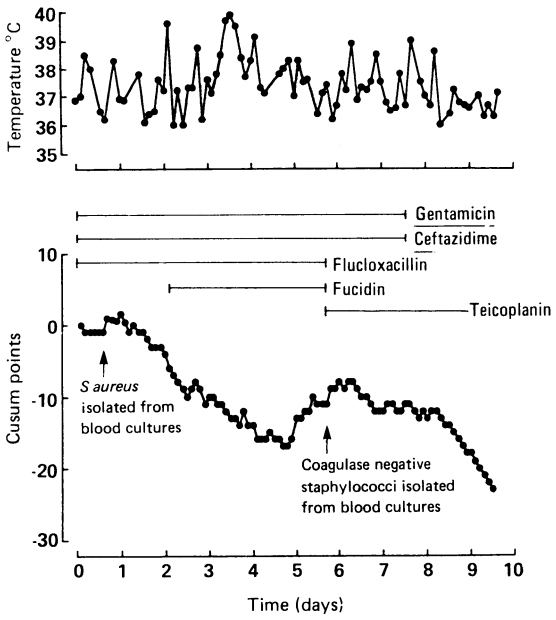

Top: Standard temperature chart of febrile patient with neutropenia; bottom: cusum distribution of temperature points with 37·6°C as reference temperature, showing trend to reduced temperature with addition of fucidin

Comment

Cusum plotting is clinically useful when a fever is swinging wildly and the overall trend is hidden, when other antimicrobial agents are given that are therapeutically unnecessary, and in patients in whom temperature remains raised but generally static. It indicates worsening of the fever despite antimicrobial treatment and thus discloses ineffective treatment. In this study the overall trend of fever was more easily seen with cusum plotting and timing of empirical antifungal treatment was easier. In neutropenic patients who fail to respond to treatment with broad spectrum antibiotics empirical antifungal treatment is started on the fifth or sixth day of fever. This study also showed that when patients remain febrile (that is, the gradient of the cusum plot does not change appreciably) defervescence was achieved within 24-48 hours after addition of antifungal agents.

Prospective cusum plotting of temperature indicates almost immediately failure of empirical antibacterial agents or the need for empirical antifungal treatment and thus has a place in day to day management of fever in neutropenic patients.

1 Bodey GP, Buckley M, Sathe YS, *et al.* Quantitative relationships between circulating leukocytes and infection in patients with acute leukaemia. *Ann Intern Med* 1966;**64**:328-40.
2 Griffen DF. Systems control by cumulative sum method. *American Journal of Medical Technology* 1968;**34**:1968.
3 Chaput de Saintonge DM, Vere DW. Why don't doctors use cusums? *Lancet* 1974;i:120-1.
4 Wohl H. The cusum plot: it's utility in the analysis of clinical data. *N Engl J Med* 1977;**296**:1044-5.
5 Walters S, Griffin GE. Resolution of fever in Staphylococcus aureus septicaemia—retrospective analysis by means of cusum plot. *Journal Infect* 1986;**12**:57-63.

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Safety of Picolax (sodium picosulphate-magnesium citrate) in inflammatory bowel disease

A J G McDonagh, P Singh, W J Pilbrow, G R Youngs

Departments of Medicine and Radiology, Chester Royal Infirmary, Chester CH1 2AZ
A J G McDonagh, MRCP, *medical registrar*
P Singh, MRCP, *medical registrar*
W J Pilbrow, FRCR, *consultant radiologist*
G R Youngs, FRCP, *consultant physician*

Correspondence to: Dr A J G McDonagh, Royal Hallamshire Hospital, Sheffield S10 2JF.

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The widespread policy of restricting the dose of laxatives when preparing the bowel of patients with known or suspected inflammatory bowel disease for fear of severe adverse effects or of exacerbating the disease often results in poor colonic cleansing and the need for repeated tests. During the 1980s Picolax (sodium picosulphate 10 mg/sachet with magnesium citrate formed in solution) has become established as the usual laxative for preparing the bowel before radiology or endoscopy in the United Kingdom. It is effective[1] and has milder adverse effects than the older sennosides and cascara.[2,3]

In a survey of current practice among consultant members of the North of England Gastroenterology Society we found that 103 out of 117 respondents used Picolax for routine bowel preparation. In inflammatory bowel disease, however, their policy varied widely: 88 respondents adjusted the dose of laxative according to the severity of colitis, 19 invariably omitted the laxative, and 10 used the full dose even in severe colitis.

To test the hypothesis that Picolax is tolerated well in inflammatory bowel disease we undertook a survey of its adverse effects.

Patients, methods, and results

Over nine months consecutive medical outpatients and inpatients requiring a barium enema, sigmoidoscopy, or colonoscopy were prepared with a low residue diet for 48 hours and full dose Picolax (two sachets taken according to the manufacturer's instructions). All completed a questionnaire about symptoms immediately before taking Picolax and again immediately before examination. Information was obtained about the effects of bowel preparation on abdominal pain and stool frequency and about the overall nuisance caused. Nuisance and abdominal pain were graded as absent, mild, moderate, or severe. During the study four inpatients with severe acute colitis were deemed unfit for investigation.

The χ^2 test was used in group comparisons of results for abdominal pain and nuisance. Mean stool frequencies were compared by the standard error of the difference.

Out of 267 examinations, 55 were in patients with inflammatory bowel disease (48 with ulcerative colitis and seven with Crohn's disease). The table summarises the results. The frequency of increased abdominal pain and severe nuisance after Picolax was similar in the patients with inflammatory bowel disease and the patients with other colonic disorders. Interestingly, none of the patients with iron deficiency in whom investigations had yielded negative results reported severe nuisance; this was significantly different from the proportion reporting severe nuisance among the patients with inflammatory bowel disease ($\chi^2=4{\cdot}05$ with Yates's correction, $p<0{\cdot}05$), the irritable bowel syndrome ($\chi^2=8{\cdot}3$ with Yates's correction, $p<0{\cdot}01$), and diverticular disease ($\chi^2=4{\cdot}9$ with Yates's correction, $p<0{\cdot}05$). The increase in the mean number of stools/24 hours after Picolax was lower in the patients with inflammatory bowel disease than in the other diagnostic groups ($p<0{\cdot}05$). On review two to four weeks after examination none of the patients with inflammatory bowel disease reported deterioration in their symptoms.

Comment

There is no unequivocal evidence that patients with inflammatory bowel disease are at increased risk from bowel preparation with laxatives,[4] and in our study

Effect of bowel preparation with Picolax in patients with inflammatory bowel disease and other colonic disorders

Diagnosis	No (%) in group	No (%) with increased abdominal pain after Picolax	No (%) reporting severe nuisance after Picolax	Mean (SD) increase in No of stools/24 h
Inflammatory bowel disease	55 (21)	7 (13)	9 (16)	5·2 (3·6)
Irritable bowel syndrome	114 (43)	29 (25)	29 (25)	8·6 (3·5)
Diverticular disease	35 (13)	3 (9)	7 (20)	9·3 (3·7)
Iron deficiency with negative results of investigations	31 (11)	7 (23)	0	7·3 (4·5)
Other*	32 (12)	8 (25)	3 (9)	7·2 (3·7)

*Includes patients with colonic carcinomas, polyps, haemorrhoids, and mesenteric ischaemia.

they did not experience severe adverse effects any more commonly than patients with other colonic disorders.

Many clinicians have heard anecdotal reports of severe adverse effects in inflammatory bowel disease, but the only published report of colonic perforation associated with use of Picolax occurred in a patient with a diverticulum proximal to an obstructing carcinoma.[5] Interpreting anecdotal reports is difficult because of variation in the natural course of the disease among patients and because of changes in treatment about the time of investigation. If there is a tendency to severe adverse effects in inflammatory bowel disease it seems to affect few patients. We suggest that because of the practical benefit that would result from accurate knowledge of the prevalence of any such tendency a larger, cooperative study is merited.

1 De Lacey G, Benson M, Wilkins R, *et al.* Routine colonic lavage is unnecessary for double contrast barium enema in outpatients. *Br Med J* 1982;**286**:1021-2.
2 Lee JR, Ferrando JR. Variables in the preparation of the large intestine for double contrast barium enema examination. *Gut* 1984;**25**:69-72.
3 Fork F-T, Ekberg O, Nilsson G, *et al.* Colon cleansing regimes—a clinical study in 1200 patients. *Gastrointest Radiol* 1982;**7**:383-9.
4 Williams CB. Ulcerative colitis: diagnosis and the place of endoscopy. In: Allan RN, Keighley MRB, Alexander-Williams J, *et al*, eds. *Inflammatory bowel diseases*. Edinburgh: Churchill Livingstone, 1983:211.
5 Phipps RF, Fraser S. Faecal peritonitis induced by Picolax. *Br Med J* 1987;**295**:1027.

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Children of mothers with bulimia nervosa

Alan Stein, Christopher G Fairburn

Department of Psychiatry, University of Oxford, Warneford Hospital, Oxford OX3 7JX
Alan Stein, MRCPSYCH, *Wellcome Trust lecturer in mental health*
Christopher G Fairburn, MRCPSYCH, *Wellcome Trust senior lecturer*

Correspondence to:
Dr Stein.

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There is good evidence for a relation between certain psychiatric disorders in mothers and disturbance in their children.[1] Bulimia nervosa is an important source of morbidity in women of childbearing age.[2] It is characterised by recurrent episodes of gross overeating accompanied by extreme dieting, self induced vomiting, or abuse of laxatives. Patients also have overvalued ideas about shape and weight.[3] Given these features and that most patients have appreciable symptoms of depression and anxiety, it might be predicted that the feeding and general development of the children of mothers with the disorder would be adversely affected. No studies of such children have been done other than one that suggested that some women with bulimia nervosa attempt to slim down their babies.[4]

Patients, methods, and results

We studied the records of 75 consecutive women with severe bulimia nervosa; 17 of them had children. Those whose children were aged 6 years or under were invited to participate in a study of childrearing. Six women were eligible, but one declined to take part. The remaining five had children whose ages ranged from 15 months to 6 years. One had a second child of 8 years, who was also included. The mothers were interviewed, with a standard protocol, about their childrearing and feeding practices and about their attitudes towards the shape and weight of their children.

In each case the mother's disturbed eating habits and attitudes seemed to have interfered with her parenting (table). Three mothers ignored their children for substantial periods while overeating and vomiting. Two mothers described being constantly irritable when overeating and vomiting and found it difficult to cope with their children's demands. Both resorted to smacking their young children repeatedly at these times. Two mothers had problems feeding their children because they restricted the amount of food in the house in an attempt to control their own food intake.

All five mothers had had difficulties breast feeding—for example, three had thought that it was distasteful and adversely affected their appearance, and as a result two had given up within five weeks. Another had had to stop because she was unable to produce sufficient milk, probably because she was following a diet of 3·2 MJ daily.

Three of the six children had major feeding problems. One had non-organic failure to thrive and despite repeated medical intervention remained below the third centile for weight; his sibling was severely overweight. A third child was resistant and difficult to feed.

Three mothers had unwarranted concerns about the shape and weight of their children and were anxious to keep their weight down—for example, one was preoccupied with the "large size" of her baby's buttocks and stomach and could not be reassured of their normality.

Comment

In each of these cases the mother's eating disorder seemed to have affected the way that she cared for her child. In some her disturbed eating had a direct impact—for example, during episodes of overeating

Details of five mothers with bulimia nervosa and their children

Case No	Age at presentation (years)	Duration of eating disorder (years)	History of anorexia nervosa	Age (years) and sex of child at assessment	Problem
1	31	14	Yes	3, M	Child ignored during bulimic episodes
2	28	10	No	1, F	Major feeding problems; lack of food in house complicated feeding; mother unduly concerned about child's shape and weight
3	27	8	No	3, M	Child ignored or punished during bulimic episodes; lack of food in house complicated feeding; mother unduly concerned about child's weight
4	22	4	No	1, F	Undue concern about child's shape and weight
5	28	14	No	6, M	Severely underweight with history of non-organic failure to thrive; school phobia; child ignored or punished during bulimic episodes
				8, F	Severe obesity