Rectal bleeding: prevalence and consultation behaviour

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Abstract

Objectives—To determine prevalence of rectal bleeding in the community and to examine factors that lead some patients to consult their general practitioner about rectal bleeding while others do not.

Design—Questionnaire survey followed by semi-structured interviews of sample of respondents with rectal bleeding.

Setting—Two general practices on Tyneside.

Subjects—2000 adult patients registered with the general practices were sent a validated questionnaire. Respondents with rectal bleeding were divided into consulters and non-consulters, and 30 patients from each group (matched for age, sex, and characteristics of bleeding) were interviewed.

Main outcome measures—Prevalence of rectal bleeding, proportion of subjects with rectal bleeding who sought medical advice, and reasons for consulting or not consulting a doctor about rectal bleeding.

Results—287 of the 1200 respondents to the questionnaire had noticed rectal bleeding at some time in their lives, and 231 had noticed it within previous 12 months. Only 118 (41%) of all respondents with rectal bleeding had ever sought medical advice for the problem. Those aged over 60 were most likely to have consulted, as were those who reported blood mixed with their stools. Main difference between those who had sought medical advice and those who had not was that consulters were more likely than non-consulters to perceive their symptoms as serious.

Conclusions—Although rectal bleeding is common, only minority of patients seek medical advice for their bleeding. Perception of seriousness of symptoms seems to be most important factor in deciding whether to consult a doctor for rectal bleeding.

Tyne the corresponding figure was a little under half.² If colorectal cancer is to be detected early for appropriate treatment it is important to understand the factors that cause some people to consult a doctor while others tolerate symptoms without seeking medical advice.

Studies in Britain and the United States suggest that beliefs about health and concerns about symptoms are more important in determining whether people consult a doctor than the severity and frequency of symptoms and their effect on functional status.^{6,7} A comparative study of consulters and non-consulters for dyspepsia found that consulters were more likely to be worried about the seriousness of symptoms.⁸

A retrospective study of the factors involved in delays in consulting a general practitioner for rectal bleeding found that delays of more than 14 days between onset of symptoms and first consultation were significantly more prevalent among people who were not worried about the bleeding and among those who had taken some action before consultation.⁹ An Australian survey of attitudes to general health among people aged over 40 found that the main reason for delay in seeking medical advice was a belief that the symptom was not serious and would clear up on its own.¹⁰ These studies suggest some of the factors involved in decisions to consult for rectal bleeding among selected populations, but they have not examined people's beliefs and knowledge about rectal bleeding, their anxieties and concerns about symptoms, barriers to consultation, and cues to consult among those who do consult with bleeding and those who do not seek medical advice. The aim of this study was to explore these questions in detail with quantitative and qualitative methods.

Subjects and methods

QUESTIONNAIRE SURVEY

A postal questionnaire survey was carried out in a random sample of adult patients registered with two group general practices on Tyneside. The practices were of roughly equal size. One practice was situated in a predominantly middle class suburb of Newcastle upon Tyne, and the other served a large inner city population. The combined list size of adult patients for the two practices was 16 600. Each practice list was divided by sex and stratified into 10 year age bands from 20 to 80. Each patient in each band was sequentially allocated a number from 1 to 100, and a sample of 12 in each 100 was drawn by means of tables of random numbers.

Patients in the sample were sent a letter from their general practitioner and a brief postal questionnaire, validated in a previous study,¹ which asked whether they had consulted a doctor for any of a variety of lower bowel symptoms. A single reminder was sent to non-respondents after four weeks. Results from the questionnaire were coded and analysed. A list of all

Introduction

Rectal bleeding is a common symptom in the general population and affects up to 15% of all adults.¹ In a recent study of middle aged and elderly people in Newcastle upon Tyne the one year prevalence of rectal bleeding was 8%.² Others have reported six month prevalences of between 4.4% and 16%.³ Although most cases of rectal bleeding are due to self limiting local anorectal conditions, it may also be the only sign of colorectal neoplasia.⁴

In common with other gastrointestinal conditions such as dyspepsia⁵ and irritable bowel syndrome,¹ only a minority of individuals with rectal bleeding consult a general practitioner. In a study of irritable bowel syndrome in the general population, 10% of respondents aged 40–60 indicated that they had experienced rectal bleeding in the past year, but under a third of these had sought medical advice.¹ In Newcastle upon

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respondents who indicated that they had experienced rectal bleeding and whether they had consulted was given to their general practitioners for further action if necessary.

INTERVIEW

Of the respondents who had indicated that they were prepared to be contacted for interview, those who had experienced rectal bleeding in the previous 12 months and who had not undergone hospital investigations for rectal bleeding were divided into consulters and non-consulters. Patients who had undergone hospital investigations for rectal bleeding were excluded as the experience might have affected their knowledge and perceptions of rectal bleeding. The non-consulters were subdivided according to whether they had seen blood mixed with stools (which has a higher predictive value for colorectal cancer than superficial bleeding¹¹) or blood on toilet paper only. Random samples of non-consulters (15 with blood mixed with stools and 15 who had seen blood on toilet paper only) were then selected for interview. A control group of 30 respondents who had consulted a general practitioner and who were matched for age, sex, and characteristics of bleeding (blood mixed with stools or on the paper only) was also selected and invited for interview. The selected patients were contacted by telephone or letter according to their expressed preference on the questionnaire, and an interview was arranged in their home at a convenient time.

The interviews lasted between 40 and 60 minutes and consisted of a combination of structured and semi-structured questions that had been developed in a previous study.¹² The interviews focused on five main areas: basic demographic data; a detailed account of the duration, frequency, and characteristics of rectal bleeding and associated symptoms and family history of bowel disease; a semistructured examination of subjects' knowledge of causes of rectal bleeding and their beliefs about their own bleeding; details of the actions taken by the respondents in relation to the bleeding, including any seeking of advice; and a general examination of use of health services in the previous 12 months and more specific details about consultation for rectal bleeding, including an exploration of cues to consult.

The interviews were audiotaped and transcribed for analysis. Various quantitative non-parametric methods were used to analyse the demographic and background clinical data. The remaining data on perceptions, beliefs, and health care seeking behaviour were analysed with qualitative methods of content analysis, in which conceptual themes were identified and then revised and confirmed.^{13 14}

The study was approved by Gateshead Ethics Committee and Newcastle and North Tyneside Joint Ethical Committee.

Results

QUESTIONNAIRE

Of the 2000 questionnaires sent out, 119 were returned undelivered and 1200 (60%) of the remaining 1881 were completed and returned for analysis. Of the respondents, 287 (150 men, 137 women) had noticed rectal bleeding at some time in their lives and 231 had noticed it within the previous 12 months. Bleeding was most commonly reported by those aged under 50 (table I). Of the respondents who reported rectal bleeding, 90 (31%) indicated having seen blood mixed with stools and 197 (69%) reported blood only on toilet paper. Only 118 (41%) of these respondents had sought medical advice for their bleeding. Patients aged over 60 were most likely to have consulted a doctor, and those aged 40-60 were least likely to have done so ($\chi^2=7.67$,

TABLE I—Prevalence of rectal bleeding in 10 year age bands. (Values are numbers (percentages))

Age (years)	Ever bled	Bleeding in past year
20-29 (n=167)	50 (30)	45 (27)
30-39 (n=222)	79 (36)	65 (29)
40-49 (n=207)	64 (31)	50 (24)
50-59 (n=197)	37 (19)	28 (14)
60-69 (n=196)	32 (16)	23 (12)
≥ 70 (n=215)	25 (12)	20 (9)
Total (n=1200)	287 (24)	231 (19)

TABLE II—Proportion of respondents with rectal bleeding who consulted a doctor about the symptoms

Age (years)	No of respondents with rectal bleeding	No (%) who consulted doctor
20-39	129	52 (40)
40-59	101	34 (34)*
≥ 60	57	32 (56)*
Total	287	118 (41)

* $\chi^2=7.67$, $P<0.022$.

$P<0.022$) (table II). While blood on toilet paper was more commonly reported than blood mixed with stools, those patients with blood in their stools were more likely to have consulted a doctor than were those who had seen blood on the paper only (53 v 64, $\chi^2=17.109$, $P<0.0001$).

INTERVIEW

Altogether 1749 of the respondents to the questionnaire agreed to be interviewed. When those who had not experienced rectal bleeding within the past year and those who had previously undergone hospital investigations had been excluded, 61 consulters and 119 non-consulters were left for sampling. For each group, 12 men and 18 women were interviewed. The mean age of the non-consulters was 45, and that of the consulters was 47. While all the people interviewed had experienced rectal bleeding within the previous year, the range of duration of symptoms at the time of interview was four months to 12 years (median 36 months) for consulters and six months to 13 years (median 51 months) for non-consulters.

Knowledge of causes of bleeding—The subjects were asked to list all the possible causes of rectal bleeding. Knowledge of causes was similar for both groups, with haemorrhoids being the most commonly mentioned cause. The second most common known cause was cancer, mentioned by 23 consulters and 19 non-consulters (table III). Only one of the non-consulters had no knowledge of causes of rectal bleeding.

Action taken before consultation—Before consulting a doctor, 25 consulters had discussed their rectal bleeding with a relative or friend, most commonly their spouse, and nine had attempted self treatment by purchasing preparations for haemorrhoids. Of the non-consulters, 22 had so far discussed their bleeding and 11 had tried self treatment. Of these non-consulters, only four had not seen their general practitioner for some other health problem in the previous 12 months.

TABLE III—Knowledge of causes of rectal bleeding elicited at interview of respondents with rectal bleeding in past year. (Values are numbers of replies)

Cause	Doctor consulted about bleeding	
	No (n=30)	Yes (n=30)
Haemorrhoids	35	24
Colorectal cancer	19	23
Constipation or straining	10	15
Anal fissure	5	9
Ulcers or internal bleeding	3	0
Inflammatory bowel disease	3	4
None	1	0

TABLE IV—Mean reasons for consultation or non-consultation for rectal bleeding

	No of replies
Consultation (n=30):	
Worry about serious disease	16
Pain or discomfort	6
Opportunity during consultation for other reason	5
Pressure from relative	3
Non-consultation (n=30):	
Not serious	21
Symptoms cleared	4
Embarrassment	2
Knew the cause	1
Worry	1
No time	1

Reasons for consulting a doctor—Delays between the start of symptoms and seeking medical advice ranged from none to a delay of 12 years (median 2 months; interquartile range 2 weeks to 12 months). Table IV shows that the most common reason given for consultation was worry that rectal bleeding might be a sign of serious disease ("I was concerned that it could be something that could get more serious if it wasn't dealt with"). Of the 16 subjects who gave this as the main reason for seeking advice, six had delayed for at least a year. The next most common reason given was that the bleeding and associated symptoms were causing pain, discomfort, or embarrassment ("I couldn't stand the pain it was like sitting on broken glass"). For others, the opportunity arose while consulting for another reason.

Reasons for not consulting a doctor—The main reason given for not seeking advice was the belief that the bleeding was not serious ("I just don't class it as serious . . . I think they've got enough to do without that") (table IV). Of the 21 informants who gave this as their main reason, 12 had previously mentioned knowledge of a link between rectal bleeding and cancer. For others, the symptoms cleared up spontaneously, and two informants were too embarrassed to mention it ("The last time I've seen the doctor I didn't pluck up courage . . . embarrassment more than anything"). Non-consulters were also asked what they thought the cause of their bleeding was: 18 thought that it was caused by haemorrhoids, eight thought that constipation and associated straining was the cause, one thought that the "skin was broken," and three had no idea of what the cause could be.

Discussion

We found that rectal bleeding was common and that only a minority of people who experience rectal bleeding sought medical advice. Those who noticed blood mixed with stools were significantly more likely to consult a doctor than were those who saw blood on toilet paper only, but many did so only after a considerable delay. The reported prevalence of rectal bleeding in our study is higher than that reported elsewhere; this may be a reflection of the wider age range of the people we sampled or may be an indication that people with rectal bleeding are more likely to respond to a questionnaire about such symptoms. There were no differences between respondents and non-respondents in our study in terms of age and sex, and even if all non-respondents had never experienced rectal bleeding the lifetime prevalence and one year prevalence would have been 15.3% and 12.3% respectively.

The higher reporting of rectal bleeding that we found among people aged under 50 may indicate a higher prevalence in younger age groups or may indicate a greater ability among younger people to examine the toilet bowl or paper. A study of patients aged over 35 who presented to a general practitioner with rectal bleeding found that only 40% of respon-

dents always examined the bowl after defecation and only 46% always looked at the paper, but no age differences in these activities were reported.⁹ In our study respondents were not asked how often they examined the bowl or the paper.

The most important factor in deciding whether to seek advice seemed to be the perceived seriousness of the symptoms. We found no differences between consulters and non-consulters in the frequency and severity of symptoms, knowledge of causes of rectal bleeding, action taken before consultation, or opportunities for seeking advice. Our findings confirm those of Lydeard and Jones, who examined factors affecting the decision to consult for dyspepsia,⁸ and have important implications for the early detection of colorectal cancer. In 1992 there were over 17 000 deaths from colorectal cancer in England and Wales.¹⁵ Survival of patients with colorectal cancer is related to the stage of the disease at diagnosis,¹⁶ and timely investigation and early detection offer the best chance of reducing mortality.

The high prevalence and low consultation rates for rectal bleeding do, however, indicate a need to balance initiatives in health education against the resources available to deal with the problem. Risk factors known to be associated with colorectal cancer include age over 40,¹¹ a family history of colorectal neoplasia, and the characteristics of the bleeding.¹⁷ Our findings show that, while some people seek medical advice promptly, many people in these high risk groups do not. It may therefore be most appropriate to target information at those groups at highest risk of developing the disease, especially in the 40 to 60 age group, whose consultation rates were lowest. A starting point may be to introduce specific questions about rectal bleeding during routine health screening in general practice.

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