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Dyschromatopsia (number 97) and rectal bleeding

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We report three cases of delayed presentation of colorectal disease in colour blind men due to a failure to recognise bleeding as a symptom of their pathology. In all three individuals bleeding was recognised by the spouse and had been misinterpreted as loose motion by the patients. Dyschromatopsia is a common condition; it is important to identify rectal bleeding early in colour blind individuals so as to diagnose and treat the source of the bleeding.

Case reports

Case 1—A 43 year old colour blind man was seen in clinic with painless rectal bleeding which had been noted by his spouse. It had been interpreted as loose motion and had been present for three months. Examination of the abdomen and rectum were unremarkable, as was rigid sigmoidoscopy. A barium enema showed a tumour in the mid sigmoid colon. A sigmoid colectomy was performed and histology revealed a Dukes's C1 adenocarcinoma.

Case 2—A 48 year old man was admitted on the emergency intake with passage of clotted blood rectally together with mild colicky abdominal pain on the left side. The patient was colour blind and had had symptoms for two weeks but had interpreted the blood as diarrhoea. His wife had noted blood on the toilet pan and contacted the general practitioner. Examination was unremarkable apart from mild tenderness in the left iliac fossa, and rectal examination together with proctoscopy and sigmoidoscopy were normal. A barium enema showed diverticular disease of the sigmoid colon. His bleeding settled with conservative management.

Case 3—A 36 year old man presented to the outpatient clinic with painless fresh rectal bleeding, which had been noticed on the toilet pan by his wife. The length of the history was indeterminable and there were no other symptoms suggesting colorectal disease. His history included dyschromatopsia. Examination of the abdomen and rectum was unremarkable, as was sigmoidoscopy. Proctoscopy showed second degree haemorrhoids, which were banded with successful control of bleeding.

Comment

In these three cases of rectal bleeding, presentation was delayed because the subjects were colour blind. In all cases the bleeding was first noted by the spouse and

Fig 1—People with dyschromatopsia are unable to identify the 97, which can be read by people with normal vision

had not been correctly identified as bleeding by the patient because of his defective colour vision.

Incomplete colour blindness or dyschromatopsia is an X linked disorder which affects up to 8% of males and 0.4% of females.¹ It usually manifests as defective perception of red and green and is related to the presence of abnormal cone photopigments.

Colour blindness can be confirmed with the use of Ishihara charts (fig 1). In this example a patient with normal vision reads 97 but a patient with dyschromatopsia is unable to see any number.

A literature search revealed only a single comment relating to rectal bleeding and colour blindness. This was a letter by an American proctologist warning of the potential for missing both rectal bleeding and haematuria and encouraging the use of confirmation by spouse if bleeding was suspected.²

We recommend a very low threshold for the investigation of colorectal symptoms in colour blind people, and in particular those with a family history of colorectal disease, as presentation may be delayed owing to a failure to correctly identify bleeding.

We thank Isshin-Kai Foundation, which holds the copyright of the Ishihara charts, for allowing us to reproduce plate 12 of the 38 plate Ishihara charts. We must emphasise that this reproduced plate should not be used for testing purposes.

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