Medical Memoranda

Intussusception Complicating Anticoagulant Therapy

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The increasing use of long-term anticoagulants as an adjunct to the management of such common conditions as coronary thrombosis, cerebrovascular accidents, thrombophlebitis, and recurrent pulmonary embolism makes an awareness of the possible hazards of such therapy important. This is especially so when patients may be receiving treatment on an outpatient basis and adequate supervision of dosage may be difficult. Zweifler *et al.* (1966) estimate that both in England and in the U.S.A. bleeding occurs in approximately 10% of inpatients receiving anticoagulants, and this proportion rises to 33% for ambulatory patients. The great majority of such bleeding episodes are fortunately of a minor nature and manifest themselves principally as haematuria, epistaxes, bleeding gums, melaena, and subcutaneous ecchymoses. However, no site appears to be immune from anticoagulant-induced bleeding, and atypical isolated haemorrhages into the brain, bowel, joints, adrenal glands, ovaries, peritoneum, or retroperitoneal tissues may present a variety of diagnostic challenges.

The following case illustrates an acute abdominal complication of the use of anticoagulants which does not appear to have been previously reported.

CASE REPORT

A 58-year-old man was admitted as an emergency case to the Royal Berkshire Hospital on 21 April 1967 with a 12-hour history of the sudden onset of colicky central abdominal and back pain radiating into his legs and accompanied by vomiting, which he had noted to be blood-streaked. He was extremely constipated and admitted to having had no bowel action over the preceding eight days.

He had been taking phenindione 100 mg. in divided doses daily for 11 years since his first admission for a large posteroseptal myocardial infarction in 1956. He had since then been admitted on three subsequent occasions, in 1958, 1959, and 1963, on account of further less severe episodes of myocardial infarction with proved electrocardiographic changes. His last outpatient attendance had been six months previously, at which time his prothrombin level had been reported as 35% of normal.

On admission he was pale and sweating and complained of now constant agonizing central abdominal pain. His B.P. was 120/90 mm. Hg, pulse rate 95 with poor volume, and Hb 97% ; a specimen of urine showed frank haematuria. Abdominal examination revealed extreme generalized tenderness with rebound and rigidity of the abdomen on the right side, and in the right iliac fossa an ill-defined mass could just be palpated. A large bruise was noted over his left elbow. Intravenous vitamin K₁ was given immediately, and at the same time a sample of blood was obtained from which the prothrombin time was found to be 10% of normal.

At examination under anaesthesia two hours after admission the ill-defined mass in the right iliac fossa was felt as a tense smooth swelling lying in the right subcostal region, and on this physical sign a diagnosis of intussusception was first entertained. At laparo-

tomy through a right paramedian incision a recent haemoperitoneum of approximately 1 pint (570 ml.) was found and there was extensive retroperitoneal haemorrhage. The subcostal mass was found to be an 8-in. (20-cm.) caeco-colic intussusception originating at the caput caeci, which could be reduced only with difficulty and with some splitting of the serosa because of gross subserosal haemorrhage. After reduction the caecal wall was found to be approximately 1 in. (2.5 cm.) thick with suffused blood and there was a boggy submucosal haemorrhage 3 in. (7.5 cm.) in diameter in the caput caeci. The lumen of the remainder of the colon and terminal ileum was packed with very hard faeces. Since all parts of the colon appeared to be viable in spite of its blackened haemorrhagic appearance the abdomen was closed without resection. The patient's postoperative progress was uneventful and he was discharged symptom-free on a reduced dose of oral anticoagulants three weeks later.

Though the operative findings appeared to supply an adequate explanation for the intussusception it was still considered possible that the very large caecal haematoma may have masked an underlying primary lesion. But outpatient barium enema double contrast screening examinations carried out at two and four months after his discharge failed to show any abnormality of caecum or terminal ileum.

COMMENT

A very high incidence of intussusception in adults occurs in tropical West Africa (Cole, 1966), but in Western countries the condition is uncommon, accounting for only about 5% of all cases of intestinal obstruction (Krasner, 1965), and in contrast to "primary" or "idiopathic" intussusception in infants, it is nearly always related to a specific localized lesion (Bond and Roberts, 1964). That intramural bowel haemorrhage of itself may be sufficient to precipitate intussusception is evidenced by its occasional occurrence in Henoch-Schönlein's and rheumatoid purpura.

Spontaneous intramural haemorrhage of the intestine was first reported as a complication of anticoagulant therapy by Berman and Mainella (1952), and other cases have been described with involvement of the duodenum and colon (Gabriele and Conte, 1964). Such intramural bowel haemorrhages have been shown to be capable of causing a circumferential bowel stenosis leading in some instances to complete obstruction or even to a localized infarction. It is suggested that in the case reported here a caecal submucosal haemorrhage, probably caused by abrasion of a faecal scybalum, precipitated an acute caeco-colic intussusception.

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