The 'wandering' abdominal lump: intussusception up to splenic flexure of an ileocaecal adenocarcinoma

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INTRODUCTION

Colorectal cancer is the second most common cancer in the UK. In 80% of cases, diagnosis is not made until the cancer has spread through the bowel wall (McArdle et al, 1990; Allum et al, 1994; Cairns and Scholefield 2002).

Ileocaecal valve tumours are rare and the tumour is usually advanced and often associated with extensive metastases at the time of operation (Weinstein, 1970). They commonly present with intestinal obstruction (Takenoue et al, 2003).

The authors report a case of intussuscepting ileocaecal valve adenocarcinoma. To the best of their knowledge, this appears to be the first case with such an unusual presentation as a mass in the left hypochondrium in an adult.

DISCUSSION

Colonic intussusceptions in adults are rare and have been reported to occur in 4.6% of colorectal cancers (Teasdale, 1953). They often originate as a result an intrinsic pathology in the bowel, mainly from neoplasms of the caecum or sigmoid colon.

Other pathological lesions that have been reported to cause adult ileocolic intussusception include, intestinal polyps or lipoma, ileal hamartoma, caecal endometriosis, appendicular mucocele, appendicular carcinoid, Meckel's diverticulum, lymphoma, metastatic melanoma and colonic adenocarcinoma (te Strake, 1980; Gaa and Deininger 1989; Huang et al, 1994; Gonzalez et al, 1998; Di Rienzo et al, 2002).

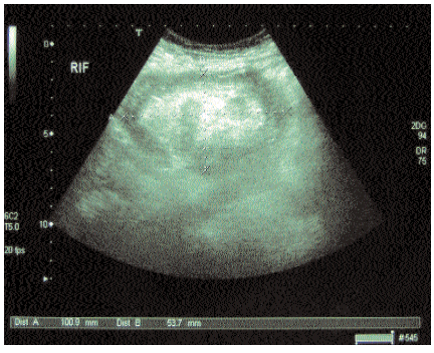

Figure 1. Ultrasound picture showing the 'pseudo-kidney' sign in right Iliac fossa.

Ileocaecal valve adenocarcinoma is a rare tumour, representing 1.32% of colonic malignancies (Glasser and Mersheimer, 1942). The repeated trauma caused by the jet of alkaline ileal contents impinging on the caecal mucosa has been proposed as a causative factor for malignant transformation (Wakeley and Rutherford, 1933). Chronic intestinal schistosomiasis has also been reported as a potentially pre-cancerous condition leading to signet-cell carcinoma of the ileocaecal valve (Helmstadter et al, 1994). These tumours have a greater tendency to metastasize than elsewhere owing to the rich vascular and lymphatic supply.

Adult intussusception does not possess the characteristic symptoms or

CASE REPORT

A 63-year old woman presented with a 4-day history of watery diarrhoea that was preceded by acute constipation. This was associated with intermittent colicky abdominal pain and one episode of fresh rectal bleeding on the previous day. Past history included haemorrhoids, cholecystectomy and reflux disease with no significant family history of cancer. She was seen in the accident and emergency department with a mass in right iliac fossa (RIF), which was managed as scabylous mass owing to the history of constipation.

The next day, the woman came back with continued symptoms. On this occasion, she had a firm, mobile mass, now palpable in the left hypochondrium associated with abdominal distension. Rectal examination revealed an empty rectum. Haematological and biochemical tests including tumour markers were essentially normal. Plain X-ray of the abdomen revealed a partial small bowel obstruction and the patient was commenced on conservative management.

The following day, although her symptoms resolved, the mobile abdominal mass was still persistent but now palpable in the RIF. An ultrasound examination of the abdomen and pelvis showed 'a pseudo-kidney' sign in the RIF (*Figure 1*). An unprepared contrast enema revealed a possible neoplastic lesion at the splenic flexure (*Figure 2*). Helical computed tomography showed a 'bowel within bowel' appearance in the left hypochondrium with proximally-dilated small bowel loops (*Figure 3*).

She underwent a laparotomy, which showed a mobile, ileocaecal tumour with intussusception reaching the splenic flexure. There was no evidence of disseminated disease. An extended right hemicolectomy with en-bloc resection of the intussuscepting mass was performed. She had an uneventful postoperative period.

Pathological examination of the resected specimen revealed a 4.0 cm x 4.5 cm x 3.0 cm nodular tumour of the ileocaecal valve with intussusception of a 6.0 cm length of terminal ileum. Histological examination showed a moderately well differentiated adenocarcinoma with clear resection margins (*Figure 4*). There was no nodal or vascular invasion. Pathological staging of the tumour was Dukes' A, T2 (tumor confined to bowel wall), N0 (no tumor deposit in 11 lymph node harvested) (0/11), M0 (no distance metastasis).

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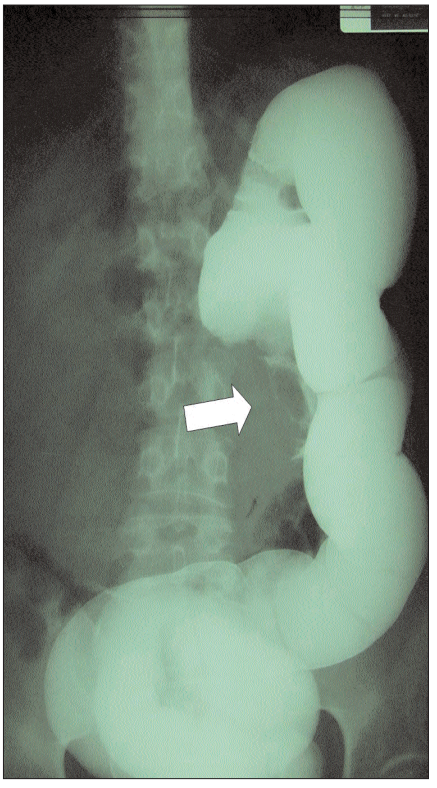

Figure 2. Gastrografin enema showing 'cup-shaped' filling defect in region of splenic flexure.

signs as opposed to intussusception in children. Clinical diagnosis can be difficult and is sometimes established in the operating room (Takenoue et al, 2003). A history of intermittent bowel obstruction with episodic diarrhoea and a palpable, mobile abdominal mass should prompt the clinician of the likelihood of an intussusception. Further, it appears that intussusception complicating an ileocaecal valve tumour usually presents as a right-sided abdominal lump unlike the unusual presentation seen in this case (Weinstein, 1970).

The characteristic finding of a cup-shaped filling defect on barium enema (Takenoue et al, 2003) and ultrasonographic finding of a 'concentric ring' or 'doughnut' or 'pseudo-kidney' sign (Lim et al, 1994) are pathognomic of intussusception. Computed tomographic appearance of adult intussusception is a tapering homogenous peripheral mantle with mixed density core called the 'target sign' (Styles and Larsen, 1983). Magnetic resonance findings of intussusception include 'bowel-within-bowel' appearance and 'coiled-spring' appearance (Marcos et al, 1997). Resection of colonic intussusception without surgical reduction has been suggested to minimize operative manipulation of a potential malignancy (Nagorney et al, 1981). HM

Figure 3. Helical computed tomograph showing 'bowel within bowel' appearence in the left hypochondrium.

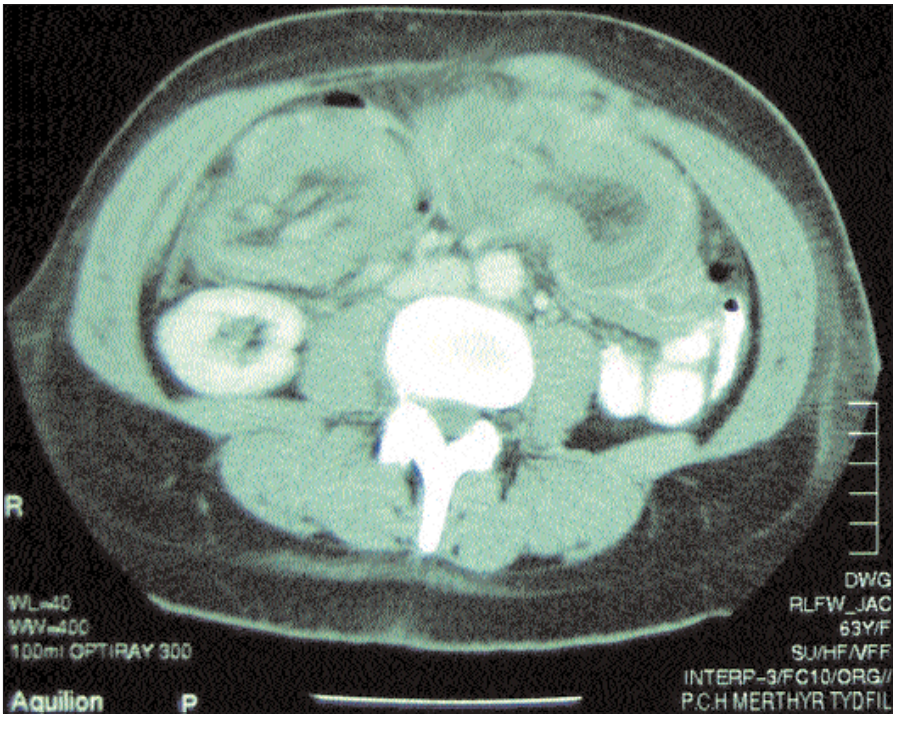

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Figure 4. History showing ileocaecal valve adenocarcinoma with muscle invaion.