Submucosal lipoma of the colon with intussusception

Sir,

We read with interest the paper by Stephen P. Courtney, and colleagues on intussusception in the adult.1 This has prompted us to report our case of a submucosal lipoma of the colon presenting with intussusception.

A 62 year old man presented with a 5 day history of passing fresh blood per rectum associated with colicky abdominal pain. He complained of tenesmus but each time he tried to defaecate, he only passed blood. On examination he was found to be in pain without any localized tenderness or guarding in the abdomen. Rectal examination revealed a smooth 5 cm mass with a soft consistency. On sigmoidoscopy the mass had a smooth mucosal lining and looked ischaemic with superficial ulcerations. A clinical diagnosis of a submucosal lipoma was made and a barium enema was performed. This was reported as showing an intussuscepting polypoid lesion in the sigmoid colon which failed to reduce. At laparotomy the barium enema findings were confirmed and a limited sigmoidectomy was performed. The patient made an uneventful postoperative recovery and histology confirmed the diagnosis.

Gastrointestinal submucosal lipomas are rare. The highest incidence is found in the colon.2 There is a female predominance.3 The majority are asymptomatic and when symptomatic they present most commonly in the sixth decade. They have been known to cause intrabdominal pain, constipation, diarrhoea, obstruction, bleeding and intussusception.2-5 Symptoms seem to be related to size and are commoner in lipomas greater than 2 cm in diameter.3 Diagnosis before laparotomy is uncommon.4 Two thirds of all lipomas are found in the right colon whereas the majority of carcinomas arise in the left.5

Barium enema and colonoscopy are helpful in diagnosis. Recently, computerised tomography and endoscopy have been recognized as valuable diagnostic tools in differentiating colonic lipomas from more common adenomatous polyps and carcinomas.6,7 Endoscopy will miss subserosal lipomas which account for 10% of all colonic lipomas.8 Lipomas can be removed by simple colotomy or by myotomy and enucleation. Attempts to diagnose this condition preoperatively saves the patient a more radical colectomy for a suspected carcinoma.

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Electrocardiographic Q-Tc prolongation associated with infusion of intravenous pamidronate disodium

Sir,

Pamidronate disodium (APD: 3-amino-1-hydroxypropyldiene-1-diphosphonate) is used increasingly in the treatment of hypercalcaemia of malignancy, Paget's disease, and osteoporosis. It is a potent inhibitor of bone resorption and may act by inhibiting osteoclastic function.1 We report prolongation of the Q-Tc interval in a patient treated with pamidronate.

A 71 year old female with a history of malaise, anorexia and vaginal bleeding was found to have metastatic squamous cell carcinoma of the cervix. She was taking no medications. Biochemical investigations demonstrated normal sodium, potassium, phosphate and urea concentrations. The calcium was 3.14 mmol/l (normal 2.2-2.6 mmol/l) with an albumin of 27 g/l and alkaline phosphatase of 429 U/l (normal 90-280 U/l). The electrocardiogram (ECG) on day 1 demonstrated normal sinus rhythm with normal axis, PR interval, QRS width and Q-Tc interval (0.43 seconds as calculated by Bazett's formula).

The hypercalcaemia was treated initially with vigorous (5 litres/hour) intravenous rehydration with isotonic saline. On day 3, 30 mg of pamidronate was given intravenously in 250 ml isotonic saline over 4 hours. The serum calcium, however, increased over the next few days to 3.69 mmol/l (albumin 27 g/l) on day 7 and a further 30 mg of pamidronate was administered intravenously.

The patient's clinical condition improved but the serum calcium decreased to 2.0 mmol/l (albumin 26 g/l) on day 13 and then to 1.76 mmol/l (albumin 25 g/l) on day 15 and

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remained at 1.8 mmol/l until day 22. On day 15 the ECG revealed sinus rhythm with normal axis, P-R interval and QRS width but with a prolonged Q-Tc interval of 0.55 seconds. On day 22 the Q-Tc had shortened to 0.45 seconds.

Of the three biphosphonates licensed in Britain, pamidronate, etidronate and clodronate, pamidronate has the most profound and prolonged action. Patients may report short-lived symptoms of hypocalcaemia, such as paraesthesiae or demonstrate Chvostek’s and Trouseau’s signs as the serum calcium and in particular the ionized calcium falls. This may be related to the rate of fall rather than absolute calcium concentrations. Intravenous etidronate when given to dogs in high doses is known to predispose to lethal ventricular arrhythmias related to depression in serum ionized calcium concentrations and this is associated with prolongation of the Q-Tc interval. ECG changes have not been reported with pamidronate infusion in man. Significant hypocalcaemia due to pamidronate has been reported with concurrent administration of an aminoglycoside. Symptoms of hypocalcaemia have been reported to occur almost 2 weeks after infusion. Francis et al. noted the ECG to be a sensitive indicator of ionized calcium concentration and suggested it could be used as a monitoring device. This may be useful in facilities where ionized calcium estimation may not be readily available. Of concern is that Q-Tc prolongation predisposes to malignant ventricular arrhythmias and in particular torsade de points. The incidence of ECG abnormalities and the need for rectification with, for example, intravenous calcium gluconate should be established and currently recommended infusion times altered if necessary, especially since recent data suggest that significant hypocalcaemia does occur (and may do so late and unpredictably) with intravenous biphosphonates.

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Sublingual captopril in hypertensive urgencies

Sir,

Treatment of hypertensive urgency requires gradual lowering of blood pressure over 24 hours. Several drugs (sublingual nifedipine, oral clonidine, labetalol and captopril) have been used with successful results. Recently, promising results have been shown with the use of sublingual captopril.1-3 All these reports on sublingual administration of captopril, except that conducted by Pujadas et al.,3 have been either non-randomized observations or have incorporated few patients. In a prospective randomized trial conducted by us, efficacy and toxicity profile of sublingual nifedipine and sublingual captopril were compared in 47 consecutive patients with hypertension with diastolic blood pressure (DBP) of more than 120 mmHg (Phase V) as shown in all three baseline readings taken 5 minutes apart in the emergency room. Patients were randomly given sublingual nifedipine capsule (10 mg capsule with multiple punctures) and evenly powdered captopril tablets (25 mg) in perforated capsules by the same route. Heart rate and blood pressure were measured at 5, 10, 15, 20, 30, 60, 120, 240 and 360 minute intervals by the same observer. The patients attaining DBP less than 100 mmHg, after institution of the appropriate treatment, were considered ‘responders’. Statistical analysis was performed using t-test (for paired and unpaired data), Wilcoxon’s test and Spearman’s rank correlation coefficient test.

The nifedipine group (n = 25) and captopril group (n = 22) were similar in their clinical profiles. Onset and peak of action of nifedipine was earlier than captopril (Table I). Therapeutic efficacy of nifedipine declined after 2 hours with 44% patients sustaining DBP less than 110 mmHg at 4 hours and only 8% at 6 hours. In the captopril group, a larger number of patients maintained DBP less than 110 mmHg (90% at 4 hours; 50% at 6 hours). Mean DBP at 4 and 6 hours was significantly higher in the nifedipine group. With treatment, heart rate increased significantly more often in the nifedipine group.

Side effects were observed frequently in the nifedipine group: headache 11%, palpatations 16%, weakness and flushing 8%, precipitous fall of blood pressure 8% (maximum 90/65 mmHg) as compared to that seen in captopril group (burning mouth 9% and nausea 5%).

Earlier, several workers2,3 have observed efficacy and safety of sublingual captopril in hypertensive urgencies in fewer patients. Pujadas and coworkers observed that onset, duration and mean fall of blood pressure was similar in patients given sublingual nifedipine and captopril. However, a small study (n = 12) more closely follows our observations. A recent report,7 gives comparable blood pressure responses and side effect profile with sublingual captopril and nifedipine. Results of the present study indicate that sublingual captopril appears to offer various advantages over sublingual nifedipine in hypertensive urgencies, namely gradual reduction of blood pressure with persistence of action at 6 hours, minimal side effects, no risk of rapid hypotension and reflex tachycardia.

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