

# Acute Ischaemic Colitis in a Young Woman

## Abstract:

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## Abstract

Although rare in young patients, acute ischaemic colitis can have devastating consequences. We detail the presentation and clinical course of a severe, progressive case of this disease related temporally to the recent ingestion of a sibutramine-containing herbal slimming agent procured on-line without prescription or medical indication in a young female that ultimately required emergency laparoscopic total colectomy with end ileostomy to prevent end organ failure.

## Introduction

Ischaemic colitis is traditionally associated with co-morbid elderly patients with atherosclerosis, hypercoagulability, low flow states and/or malignancy. However it can occur in young, previously healthy individuals. We report an acute, severe instance of this disease in a young female possibly due to an illegal slimming agent she purchased on-line.

## Case Report

An 18 year old woman (BMI 22 kg/m<sup>2</sup>) presented acutely with lower abdominal cramps and bloody diarrhoea on a background of mild, chronic constipation. General clinical examination and full laboratory profiling revealed only mild abdominal tenderness and a slight C-reactive protein elevation (19mg/L). Stool sample cultures were clear and abdominal plain radiography normal. Her only medication use was long-term depot progesterone for contraception and a self-prescribed herbal slimming pill (Botanical Soft Gel) bought online to help her 'tone up' before a planned sun-holiday with friends and taken over the previous five days. Early colonoscopy showed a normal rectum and left colon with a grossly inflamed splenic flexure that was non-traversable due to patient discomfort. Mucosal biopsies were taken and treatment for a non-infective inflammatory colitis commenced.

The patient's abdominal pain and tenderness worsened. Her haemoglobin and platelet count dropped and her urea and creatinine as well as lactate dehydrogenase and D-dimer levels rose markedly. An abdominal computerised tomogram (see Figure 1) and repeat colonoscopy now indicated severe, progressive pan-colitis and the endoscopic biopsies were reported as revealing ischaemic colitis (see Figure Two). Hypercoagulation screening for proteins C and S abnormality, antithrombin III deficiency and factor V Leiden/prothrombin 20210 mutation was normal. Due to her deteriorating condition, she underwent emergency laparoscopic total colectomy with end ileostomy. She made an excellent postoperative recovery and was discharged well on post-operative day 7. Full pathological analysis confirmed mural colonic ischaemia without vascular thrombus suggesting vasospasm as a putative mechanism. The patient's gastrointestinal continuity was restored at an interval of three months by single port laparoscopic ileorectal anastomosis and the patient is now doing well.

Figure 1: CT Abdomen showing pancolitis eight days after onset of symptoms and despite immunosuppressive therapy begun promptly empirically for presumed acute non-infectious, inflammatory bowel disease.

Figure 2: Mucosal biopsy showing acutely inflamed colonic mucosa with focal ulceration, crypt atrophy and a drop out with lamina propria fibrosis. The features are typical of ischaemic colitis.

## Discussion

Although acute ischaemic colitis has occasionally been reported in otherwise healthy youths, it has been typically transient in this population and associated with either oral contraceptive pill usage, vasculitic conditions, heritable coagulopathies or cocaine use. While constipation and marked acute weight loss have been suggested as contributing risk factors, our patient had none of these aetiologies to any notable degree. Uniquely as compared to the literature however, our patient had started taking a specific slimming agent immediately prior to symptom onset. Samples analysis from the same batch by the Irish Medicines Board (IMB) concluded this composite agent contains very high doses of the agent sibutramine, a serotonergic, noradrenaline and dopamine reuptake inhibitor that increases neurotransmitter concentration at synaptic clefts (information previously also confirmed by the FDA the seller's website at the time of sale).<sup>6</sup> While previously marketed and prescribed until 2010 as an adjunctive anti-satiety agent for obesity, sibutramine has now been withdrawn from sale in many regions including the European Union, United States, Canada and Australia because of a significant association with adverse cardiovascular events (including myocardial infarction in teenagers).<sup>9</sup> In July 2011, both the U.S. FDA and the UK's MHRA issued further consumer warnings specifically concerning the sibutramine content of Botanical Slimming Gels among other on-line available 'herbal' agents. Worryingly, however the number of weight loss drugs detained by the authorities after their online purchase by Irish consumers increased by almost 500 per cent last year<sup>4</sup> but absent from

In conclusion, ischemic colitis may occur in young patients in the absence of typical aetiological factors and prove life threatening. Early endoscopic assessment for pathological certainty in addition to timely surgical intervention are crucial factors in ensuring successful outcome. The increased capacity for self-medicating with harmful, pharmacologic agents due to the internet and, in particular, its lack of enforced regulation combined with misleading or absent declaration of active compounds pose a grave threat to naïve consumers. This case also highlights the importance of taking a full drug history which, in turn, may allow for the inclusion of certain rare conditions into the differential.

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