- 37 **Maaser C**, Housley MP, Imura M, et al. Clearance of *Citrobacter rodentium* requires B cells but not secretory immunoglobulin A (IgA) or IgM antibodies. *Infect Immun* 2004;**72**:3315–24.
- 38 **Branson R**, Potoczna N, Kral JG, et al. Binge eating as a major phenotype of melanocortin 4 receptor gene mutations. *N Engl J Med* 2003;**348**:1096–103.
- 39 **Huszar D**, Lynch CA, Fairchild-Huntress V, et al. Targeted disruption of the melanocortin-4 receptor results in obesity in mice. *Cell* 1997;**88**:131–41.
- 40 **Gettling SJ**, Schioth HB, Perretti M. Dissection of the anti-inflammatory effect of the core and C-terminal (KPV) alpha-melanocyte-stimulating hormone peptides. *J Pharmacol Exp Ther* 2003;**306**:631–7.
- 41 **Hiltz ME**, Lipton JM. Antiinflammatory activity of a COOH-terminal fragment of the neuropeptide alpha-MSH. *FASEB J* 1989;**3**:2282–4.
- 42 **Szardenings M**, Muceniec R, Mutule I, et al. New highly specific agonistic peptides for human melanocortin MC(1) receptor. *Peptides* 2000;**21**:239–43.
- 43 **Slominski A**, Plonka PM, Pisarchik A, et al. Preservation of eumelanin hair pigmentation in proopiomelanocortin-deficient mice on a nonagouti (a/a) genetic background. *Endocrinology* 2005;**146**:1245–53.
- 44 **Smith R**, Healy E, Siddiqui S, et al. Melanocortin 1 receptor variants in an Irish population. *J Invest Dermatol* 1998;**111**:119–22.
- 45 **Healy E**, Flannagan N, Ray A, et al. Melanocortin-1-receptor gene and sun sensitivity in individuals without red hair. *Lancet* 2000;**355**:1072–3.
- 46 **Flanagan N**, Healy E, Ray A, et al. Pleiotropic effects of the melanocortin 1 receptor (MC1R) gene on human pigmentation. *Hum Mol Genet* 2000;**9**:2531–7.
- 47 **Palmer JS**, Duffy DL, Box NF, et al. Melanocortin-1 receptor polymorphisms and risk of melanoma: is the association explained solely by pigmentation phenotype? *Am J Hum Genet* 2000;**66**:176–86.
- 48 **Kennedy C**, ter Huurne J, Berkhout M, et al. Melanocortin 1 receptor (MC1R) gene variants are associated with an increased risk for cutaneous melanoma which is largely independent of skin type and hair color. *J Invest Dermatol* 2001;**117**:294–300.
- 49 **Hugot JP**, Chamaillard M, Zouali H, et al. Association of NOD2 leucine-rich repeat variants with susceptibility to Crohn's disease. *Nature* 2001;**411**:599–603.
- 50 **Ogura Y**, Bonen DK, Inohara N, et al. A frameshift mutation in NOD2 associated with susceptibility to Crohn's disease. *Nature* 2001;**411**:603–6.

EDITOR'S QUIZ: GI SNAPSHOT

Weight loss and an abdominal mass after resection of a lung carcinoma

Robin Spiller, Editor

Clinical presentation

A 47 year old man underwent a right upper lobectomy with resection of the chest wall for pleomorphic carcinoma of the lung in July 2003. In January 2004, he had abdominal pain and anorexia. Gastrointestinal endoscopy showed no remarkable findings. On admission, body temperature was 37.3°C. The abdomen was flat but tenderness was present in the lower abdomen. There was no rebound tenderness or muscle guarding. Faecal occult blood test was negative. Laboratory studies showed a white blood cell count of 17600/mm³, haemoglobin 5.8 g/dl, and C reactive protein 10 mg/dl. Tumour markers were within normal limits. Abdominal computed tomography (CT) revealed an intra-abdominal lesion 8.2×7.9 cm in size (fig 1). No recurrence of lung cancer was observed on a chest CT. Intravenous cefmetazole sodium 4 g/day and catheter drainage were performed. Contrast study from the drainage tube revealed a connection between the mass and the small bowel. Cytological examination of abscess fluid was benign.

Question

What is the diagnosis?

See page 1528 for answer

This case is submitted by:

T Kiyokawa
Y Asato
Y Komuro

Department of Surgery, Ibaraki Prefectural Central Hospital and Cancer Center, Ibaraki, Japan

Figure 1 Abdominal computed tomography. The size of the mass was 8.2×7.9 cm. It contained fluid and air.

J Imura

Department of Pathology, Ibaraki Prefectural Central Hospital and Cancer Center, Ibaraki, Japan

F Yoshimi

R Amemiya

Department of Surgery, Ibaraki Prefectural Central Hospital and Cancer Center, Ibaraki, Japan

Correspondence to: Dr Y Komuro, Department of Surgery, Ibaraki Prefectural Central Hospital and Cancer Center, 6528 Tomobe Koibuchi, Nishiibarakigun, Ibaraki 309-1793, Japan; komuro@kt.rim.or.jp

doi: 10.1136/gut.2005.090035