- 1 Walshe JM. Penicillamine, a new oral therapy for Wilson's disease. *Am J Med* 1956;21:487-95.
- 2 Brewer GJ, Terry CA, Aisen AM, Hill GM. Worsening of neurological syndrome in patients with Wilson's disease with initial penicillamine therapy. *Arch Neurol* 1987;44:490-4.
- 3 Walshe JM, Yealland M. Chelation treatment of neurological Wilson's disease. *Q J Med* 1993;86:197-204.
- 4 Brewer GJ, Turkay A, Yuzbasiyan-Gurkan V. Development of neurologic symptoms in a patient with asymptomatic Wilson's disease treated with penicillamine. *Arch Neurol* 1994;51:304-5.
- 5 Brewer GJ, Johnson V, Dick RD, Kluin KJ, Fink JK, Brunberg JA. Treatment of Wilson disease with ammonium tetrathiomolybdate. II. Initial therapy in 33 neurologically affected patients and follow-up with zinc therapy. *Arch Neurol* 1996;53:1017-25.
- 6 Tanzi RE, Petrukhin K, Chernov I, *et al.* The Wilson's disease gene is a copper transporting ATPase with homology to the Menkes disease gene. *Nat Genet* 1993;5:344-50.
- 7 Walshe JM, Yealland M. Wilson's disease: the problem of delayed diagnosis. *J Neurol Neurosurg Psychiatry* 1992;55:692-6.
- 8 King AD, Walshe JM, Kendall BE, *et al.* Cranial MR imaging in Wilson's disease. *AJR* 1996;167:1579-84.
- 9 Demirkiran M, Jankovic J, Lewis RA, Cox DW. Neurologic presentation of Wilson disease without Kayser-Fleischer rings. *Neurology* 1996;46:1040-3.

Images in medicine

Pneumatosis cystoides intestinalis

A 64-year-old woman was admitted to our hospital for a closer examination of occult blood in the stool. She appeared to be healthy, but physical examination revealed a soft elastic mass in her right lower abdomen. Laboratory examinations showed no abnormality of blood chemistry and that red and white blood cell counts were within the normal ranges. Abdominal X-ray revealed numerous round radiolucencies in the right side of the colon (figure

1), which were shown as honeycomb-like lesions by computed tomography. Total colonoscopy showed multiple submucosal cysts containing gas in the ascending and transverse colons (figure 2). She was therefore diagnosed as having pneumatosis cystoides intestinalis.

We should bear in mind that pneumatosis cystoides intestinalis can be easily diagnosed by the characteristic numerous round radiolucencies on abdominal X-ray, which can eliminate unnecessary invasive and expensive further examinations.

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Figure 1 Abdominal X-ray

Figure 2 Colonoscopic findings of the transverse colon