

## Overlapping syndrome of autoimmune hepatitis and primary sclerosing cholangitis associated with ulcerative colitis

Richard G. Lucas Jr. · Edward Y. Lee

Received: 28 January 2007 / Revised: 6 March 2007 / Accepted: 23 March 2007 / Published online: 10 May 2007

© Springer-Verlag 2007

An 18-year-old boy who had no significant medical history presented with loose stools and abdominal pain that had lasted more than 8 months. CT examination showed diffuse thickening of the colon (Fig. 1, arrows), as well as irregularity and increased enhancement of the rectosigmoid mucosa (Fig. 1, arrowheads). CT also showed a nodular liver associated with



**Fig. 1** Coronal reconstructed enhanced CT

R. G. Lucas Jr.  
Department of Radiology, St. Vincent Hospital,  
Worcester, MA, USA

E. Y. Lee (✉)  
Department of Radiology, Children's Hospital Boston  
and Harvard Medical School,  
300 Longwood Ave, Boston, MA 02115, USA  
e-mail: Edward.Lee@childrens.harvard.edu



**Fig. 2** Axial enhanced CT

shrunken left hepatic lobe, hypertrophied caudate lobe, intrahepatic biliary ductal dilatation (Fig. 2, arrow) and ascites. The patient underwent a colonoscopy, liver biopsy and biochemical studies. The results were consistent with the overlapping syndrome of autoimmune hepatitis (AIH) and primary sclerosing cholangitis (PSC).

The etiology of AIH and PSC is not clearly known but is presumed to be autoimmune-related. The overlapping syndromes of AIH and PSC are rare but are typically observed in children and young adults, often resulting in diagnostic and management difficulties [1, 2]. In this patient, overlapping syndromes of AIH and PSC were associated with biopsy-proven ulcerative colitis [2].

### References

1. Gohlke F, Lohse A, Dienes H et al (1996) Evidence for an overlap syndrome of autoimmune hepatitis and primary sclerosing cholangitis. *J Hepatol* 24:699–705
2. Koskinas J, Raptis I, Manika Z et al (1999) Overlapping syndrome of autoimmune hepatitis and primary sclerosing cholangitis associated with pyoderma gangrenosum and ulcerative colitis. *Eur J Gastroenterol Hepatol* 11:1421–1424