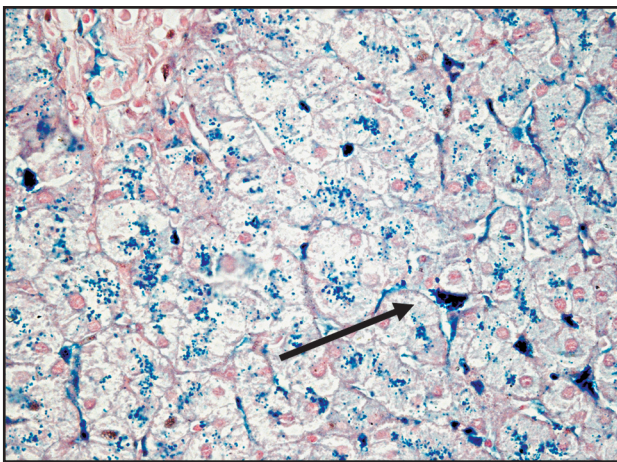


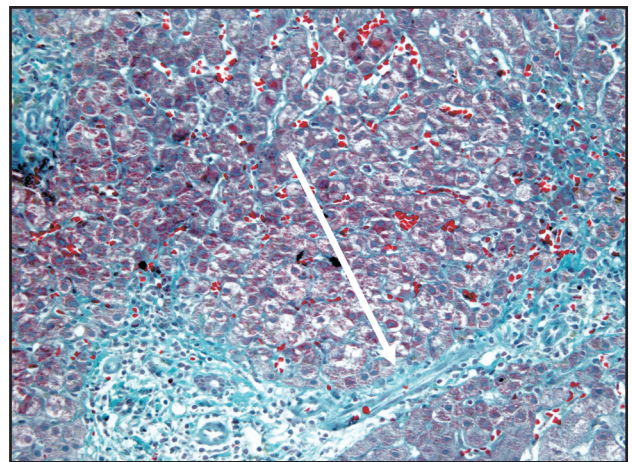
# Hepatic siderosis in a patient with hepatitis C on hemodialysis

Siderose hepática em paciente com hepatite C em hemodiálise

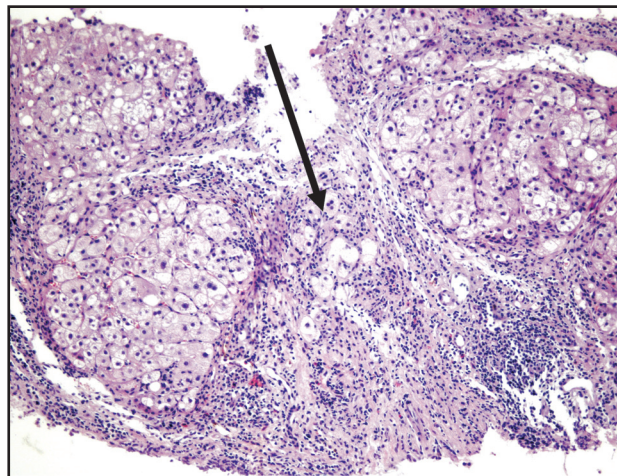
Renata Eliane de Ávila<sup>1</sup>, Kátia de Paula Farah<sup>1</sup>  
and José Roberto Lambertucci<sup>1</sup>



A



B



C

1. Serviço de Doenças Infecciosas e Parasitárias. Faculdade de Medicina, Universidade Federal de Minas Gerais, Belo Horizonte, MG.

**Address to:** Dr. José Roberto Lambertucci. Dept<sup>o</sup> de Clínica Médica/FM/UFMG. Av. Alfredo Balena 190, Santa Efigênia, 30130-100 Belo Horizonte, MG.

e-mail: lamber@uai.com.br

Recebido para publicação em 30/07/2007

Aceito em 20/08/2007

A 49-year-old man with chronic renal failure (CRF) who was on hemodialysis was admitted to hospital for treatment of hepatitis C. Clinical examination revealed hepatomegaly. The Elisa test was positive for anti-HCV antibodies and HCV-PCR gave a positive result on serum. Genotype 1a was identified and the serum alanine aminotransferase level was normal. The patient had received parenteral iron to treat anemia. His iron and ferritin levels in serum were high (255  $\mu\text{mol/l}$  and 3840  $\mu\text{g/l}$ , respectively). Prussian blue staining showed siderosis in Kupfer cells and hepatocytes (Figure A). Iron granules were visible with the naked eye (siderosis level IV). Liver biopsy revealed severe inflammatory activity and fibrosis (Figures B and C – arrows). Treatment of anemia in CRF patients on hemodialysis includes the use of erythropoietin and high doses of iron, and this may aggravate the fibrosis of hepatitis C.

O paciente, de 49 anos, com insuficiência renal crônica (IRC) em hemodiálise, apresentava hepatite C, à admissão hospitalar. O exame clínico revelou hepatomegalia. O anti-HCV (Elisa) e o PCR-HCV eram positivos no soro. Identificou-se o genótipo 1a e

os níveis de alanina-aminotransferase eram normais. O paciente havia recebido ferro parenteral para o tratamento de anemia e apresentava elevados níveis de ferro e ferritina no soro (255  $\mu\text{mol/L}$  e 3840  $\mu\text{g/L}$ , respectivamente). A coloração azul da Prússia revelou siderose em células de Kupfer e em hepatócitos (Figura A). Grânulos de ferro foram vistos sem aumento (siderose grau IV). A biópsia revelou atividade inflamatória e fibrose hepática graves (Figuras B e C – setas). O tratamento da anemia em pacientes com IRC em hemodiálise inclui o uso de eritropoietina e altas doses de ferro que pode agravar a fibrose da hepatite C.

## REFERENCES

1. Farah, KP, Carmo RA, Antunes, CMF, Serufo JC, Nobre V, Castro LPE, Leite VHR, Silva RAP, Corrêa GO, Busek SC, Lambertucci JR. Hepatitis C, HCV genotypes and hepatic siderosis in patients with chronic renal failure on haemodialysis in Brazil. *Nephrology Dialysis and Transplantation* 22: 1-5, 2007.
2. Guyader D, Thirouad AS, Erdtmann L, Rakba N, Jacquelinet S, Danielou H, Perrin N, Jouanolle AM, Brissot P, Deugnier Y. Liver iron is a surrogate marker of severe fibrosis in chronic hepatitis C. *Journal of Hepatology* 46: 587-595, 2007.
3. Strauss E. Hepatite C. *Revista da Sociedade Brasileira de Medicina Tropical* 34: 69-82, 2001.