Giant cell hepatitis associated with systemic lupus erythematous

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Abstract
Giant hepatocytes are commonly found in several neonatal and infantile liver diseases, but are rarely found in adult liver disease. A 42 year old white woman presented with a five month history of paraesthesia and numbness of both the upper and lower limbs and with vague abdominal pain. Abnormal liver function was noted on routine screening. Ultrasound scan of the abdomen showed gallstones; barium enema, ERCP and computed tomography scan were all normal. IgG antibodies to double stranded DNA were present at a titre of 40 units. Anti-cardiolipin antibodies, anti-mitochondrial antibodies and rheumatoid factor were not detected. Serology for hepatitis A, B, C, and paramyxoviruses was negative, as was the Paul Bunnell test. A clinical diagnosis of systemic lupus erythematous (SLE) with an axonal sensory polyneuropathy was made, the latter confirmed on biopsy of the sural nerve. Giant cells were noted on liver biopsy. The patient was treated with corticosteroids; liver function had improved after two years of follow up. When extensive giant cell transformation is noted on liver biopsy, particularly when neuropathy is also a feature, the possibility of an association with SLE should be considered.

Case report
A 42 year old white woman presented with a five month history of paraesthesia and numbness of both the upper and lower limbs and with vague abdominal pain. Routine screening revealed raised liver function tests (aspartate aminotransferase (AST), 147 IU/l; alanine aminotransferase (ALT), 149 IU/l; alkaline phosphatase, 395 IU/l; bilirubin, 37 μmol/l; γ-glutamyltransferase (γGT), 217 IU/l). Ultrasound scan of the abdomen showed gallstones; barium enema, endoscopic retrograde cholangiopancreatography and computed tomography scan were all normal. IgG antibodies to double stranded DNA were present at a titre of 40 units. Anti-cardiolipin antibodies, anti-mitochondrial antibodies and rheumatoid factor were not detected. Serology for hepatitis A, B, C, and paramyxoviruses was negative, as was the Paul Bunnell test. A clinical diagnosis of systemic lupus erythematous (SLE) with an axonal sensory polyneuropathy was made, the latter confirmed on biopsy of the sural nerve.

Examination of a liver biopsy specimen revealed nodularity with portocentral septum formation, not amounting to cirrhosis. The most striking feature was the extensive giant cell transformation of hepatocytes, occurring predominantly in perportal/perisepal regions (figure). Portal tracts were expanded by a predominantly lymphohytic infiltrate and there was extensive irregular periporal and perisepal piecemeal necrosis with marked ductular proliferation. Hydropic swelling and a noticeable accumulation of copper associated protein within hepatocytes, especially the multi-nucleated variety, were noted. No viral nucleocapsids could be identified on electron microscopy.

The patient was treated with corticosteroids. Follow up at two years revealed an improvement in liver function (AST, 50 IU/l; ALT, 58 IU/l; alkaline phosphatase, 334 IU/l;...
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Abstract
A patient with relapsed refractory acute myeloid leukaemia developed typical fungal lung lesions despite intravenous amphotericin B prophylaxis. Chaetomium globosum was cultured from the resected right lower lobe. Histology showed branching hyphae negative for common Aspergillus species by immunohistochemical staining. Previous reports of invasive disease caused by Chaetomium and some applications of immunohistochemical staining for Aspergillus are discussed.

Keywords: Chaetomium globosum, pneumonia, immunohistochemical staining, Aspergillus.

Patients with haematological malignancies are susceptible to invasive fungal infections. Although the great majority of such infections are caused by Aspergillus or Candida species, various fungi of low pathogenicity have occasionally been reported to cause invasive disease in these immunosuppressed patients.

Because invasive fungal infections are common and devastating complications of cytotoxic therapy in this group of patients, treatment with intravenous amphotericin B is usually introduced within 96 hours of onset of a fever resistant to broad spectrum antibiotics and for which no cause has been determined, or as soon as lesions raising the suspicion of invasive fungal infection (IFI) appear. For those patients undergoing surgical resections as part of the treatment of mycotic lung sequestra (MLS), systemic amphotericin B may already have been given for several days before the operation and, in our institution, fungi are frequently not isolated from the operative sample, so that the only evidence of IFI is the presence of fungal elements on tissue sections.

These hyphae tend to be identified as those of Aspergillus species by default even when not entirely typical. Under such circumstances there is no routine method for proving that the...