Letters to the Editor

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Fatal herpes simplex virus hepatitis complicating chemotherapy with weekly docetaxel

We report a 50-year-old female patient who was diagnosed with metastatic breast cancer 3.5 years ago. Her most recent treatment for liver and lymph node metastases was docetaxel given on a weekly schedule. Standard prophylaxis with dexamethasone prior to each docetaxel infusion was given. After a 6-week course, a computed tomography (CT) scan revealed partial remission of the liver and lymph node metastases. Therapy was resumed after a 3-week interval. The patient was hospitalized with a decreased performance status (suffering from nausea and vomiting) 72 h after administration of dexamethasone and docetaxel. Laboratory analysis showed an anicteric hepatitis with pronounced elevation of serum aminotransferases (aspartate aminotransferase 3283 U/l, alanine aminotransferase 1987 U/l), but normal bilirubin and leukopenia (0.6×10^9/l). No mucocutaneous lesions, typically suggestive of herpes simplex virus (HSV) infection, were detectable. Despite intensive supportive care the patient died of fulminant liver failure on the fifth day after chemotherapy. A liver biopsy taken immediately post mortem disclosed the striking pathological finding of non-inflammatory liver necrosis with classical features of internuclear eosinophilic inclusion bodies, and a homogeneous immunohistochemical staining for HSV.

Herpes simplex virus-induced hepatitis is a rare infection in immunocompetent adults, but patients with impaired cellular immunity may be at risk. HSV hepatitis often presents as a fulminant disease that is usually fatal (>80%). Clinical features include fever, anorexia with nausea and/or vomiting, abdominal pain, leukopenia, coagulopathy and elevation of serum aminotransferases without jaundice. Characteristic oral and/or genital lesions occur in only 30% of cases [1, 2]. To our knowledge, there have been no previous reports of fatal HSV hepatitis complicating chemotherapy with weekly low-dose docetaxel treatment in combination with dexamethasone. However, infection may go unnoticed, even post mortem, due to rapid autolysis of the liver tissue.

As potentially effective treatment for HSV infection is available (acyclovir), we suggest transjugular liver biopsy as a safe diagnostic procedure in cases of rapid performance status deterioration and pronounced liver enzyme elevation in patients undergoing chemotherapy. Serum HSV DNA detection might be of false positive significance due to irrelevant former exposure to the virus [3].

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