Fluorouracil

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Impaired consciousness and hyperammonaemia in an elderly patient: case report

A 79-year-old woman developed hyperammonaemia and impaired consciousness during treatment with fluorouracil for metastatic unresectable colon cancer.

The woman, who had developed liver impairment during two courses of oxaliplatin, fluorouracil and folinic acid [leucovorin] in December 2006, commenced chemotherapy on a modified FOLFOX6 regimen in May 2007. Treatment consisting of fluorouracil 2000 mg/m^2 as a 46-hour infusion every 2 weeks, with oxaliplatin and folinic acid. On day 2 after completing her first course, she developed impaired consciousness. Blood tests showed a high serum level of ammonia (121 µg/dL), which led to a diagnosis of impaired consciousness due to hyperammonaemia.

The woman received symptomatic treatment with IV amino acids, and her consciousness level improved. She subsequently received three more courses of chemotherapy in which the fluorouracil dosage was reduced to 1200 mg/m^2. She developed hyperammonaemia and mild impairment in her consciousness each time, but her symptoms resolved with amino acid administration. Chemotherapy was withdrawn after her fourth cycle due to progression of her cancer, and she died 1 month later.

Author comment: *Although we cannot completely rule out the possibility of oxaliplatin being the causal drug in the present case, in reference to the literature we think that the possibility of fluorouracil being the causal drug is high.*

Nakamura M, et al. A case of 5-fluorouracil-induced hyperammonaemia after chemotherapy for metastatic colon cancer Nippon Shokakibyo Gakkai Zasshi 106: 1744-50, No. 12, Dec 2009 [Japanese; summarised from a translation] - Japan

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