Coadministration of 5% Glucose Solution and Dexamethasone and Oxaliplatin-Related Vascular Pain Grade: A Case Study

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Agents used in cancer treatment can cause many side effects in patients. Oxaliplatin is a platinum-based cytotoxic agent that is used in the treatment of colorectal cancers, and one of its potential side effects is vascular pain. The current article will discuss the coadministration of dexamethasone and its potential effect on oxaliplatin-related vascular pain.

The final approach was coadministration of the oxaliplatin and DEX at initiation of infusion. Prior to the onset of any pain, DEX and oxaliplatin were given simultaneously through the same primary IV. The DEX was given in conjunction with the main line using secondary tubing. No vascular pain was experienced with this administration strategy.

Discussion

Vascular pain induced by IV infusion of antineoplastic agents can affect patient ability to complete or continue chemotherapy. A number of methods for preventing antineoplastic agent-associated phlebitis have been reported (Curran, Luce, & Page, 1990); however, none of these are completely effective. Corticosteroids have been suggested to be effective for the prevention of phlebitis (De Cock, Vermeij, & Stijnen, 1984; Kohlhardt, 1994). Tononi et al. (1997) reported that post-treatment with DEX reduced phlebitis caused by vinorelbine. Kohno et al. (2008) suggested that pretreatment with DEX was more effective than post-treatment. Moreover, Jerremlalm et al. (2002) reported that the addition of steroids to oxaliplatin is useful in controlling vascular pain.

Oxaliplatin may be given using a peripheral IV, central line (port), or peripherally inserted central catheter (PICC) line. Yoshida et al. (2012) evaluated the effectiveness of DEX for controlling vascular pain caused by the administration of oxaliplatin via the peripheral vein. The study included 47 patients who received XELOX (capecitabine plus oxaliplatin) and bevacizumab for metastatic colorectal cancer. In all the patients, oxaliplatin was administered in combination with...