Acute Tumor Pain in Patients With Head and Neck Cancer Treated With Vinorelbine

Vinorelbine (5'-nor-anhydrovinblas-tine) is a semisynthetic vinca alkaloid with a broad spectrum of antineoplastic activity, both as a single agent or in combination with other cytotoxic drugs (1). It has shown therapeutic efficacy in non-small-cell lung cancer (NSCLC) (2), advanced breast cancer (3), Hodgkin's lymphoma, and recurrent head and neck squamous cell cancer (HNSCC) (4). Because vinorelbine seems to disorganize microtubules of the mitotic figure at a lower concentration than other vinca alkaloids and fails to affect the axonal microtubules, it might be less neurotoxic and more toxic to the cancer cells (1). Other side effects, except dose-dependent granulocytopenia and thrombocytopenia, which are relatively uncommon and most of them, including constipation, local toxicity, gastrointestinal symptoms, and lung toxicity, can be avoided/minimized by intensified individual concomitant medications, careful intravenous drug administration, and shortening of the infusion time (5). The occurrence of acute tumor pain in patients treated with vinorelbine was reported by Gebbia et al. (6). They observed an intractable pain symptom in patients receiving a combination regimen of vinorelbine and cisplatin at high doses and concluded that the combination of the two potentially neurotoxic drugs might have enhanced neurologic symptoms.

We treated 17 patients with recurrent or metastatic HNSCC with a combination regimen consisting of vinorelbine at a dose of 30 mg/m² (days 1 and 2) and mitomycin C at a dose of 15 mg/m² (day 1). To prevent/countertact gastrointestinal symptoms and potential lung toxicity, 8 mg dexamethasone and 5 mg granisetron were administered before cytotoxic drug administration. Nine (34%) of our 26 patients experienced acute pain at the tumor site with radiation of pain along the corresponding cranial nerves (primarily the auriculotemporal nerve) plus distressing headache immediately after or during the first vinorelbine administration. We observed no swelling of the painful tumor site and no other neurologic toxicity in these patients. The pain attack lasted 1 hour or less in most of the patients; only two patients had neuralgia, for a duration of 2 days.

For pain control, all of the patients received an intravenous cocktail, consisting of metamizol, diclofenac, and tramadol, and the vinorelbine infusion was interrupted. In contrast to the experience of Gebbia et al. (4), symptoms were clearly related to vinorelbine, since they occurred before administration of the second cytotoxic agent (i.e., carboplatin or mitomycin C), and none of our patients had received any other potentially neurotoxic drug. All patients were asymptomatic before treatment and, since peripheral neuropathy or any other neurologic deficit was an exclusion criterion of this regimen, all had normal neurologic conditions prior to therapy. It seems noteworthy that all patients who experienced pain attacks had locoregional tumor recurrence after surgery and/or radiation therapy.

Since we have not observed tumor pain associated with vinorelbine combination chemotherapy in patients with breast cancer and NSCLC, including patients with peripheral lymph node metastases and/or inoperable primary tumors, our hypothesis is that prior surgery and/or radiation therapy caused a nervous lesion and the administration of the spindle poison vinorelbine resulted in a neuralgic pain. We were not able to prevent this pain attack with pretreatment medications. All patients with a locoregional relapse of HNSCC after surgery and/or radiation therapy during the first administration of vinorelbine should be informed of and monitored for this adverse reaction.

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References


Notes

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