Cancer Chemother Pharmacol (1998) 41: 427–428

SHORT COMMUNICATION

M. Linn · E. Brodt · K. Gutschow · M. Kolben

Progression of Parkinson's disease with impairment of vision under carboplatin/cyclophosphamide therapy for ovarian cancer

Received: 22 September 1997 / Accepted: 21 October 1997

Abstract We report on a patient who experienced a progression of Parkinson's disease with impairment of vision under carboplatin/cyclophosphamide therapy for ovarian cancer.

Key words Parkinson's disease · Impairment of vision · Carboplatin/cyclophosphamide therapy · Ovarian cancer

Platinum-containing regimens are an important part of ovarian cancer therapy. In contrast to cisplatin, gastrointestinal side effects and nephrotoxicity are considerably less pronounced in carboplatin therapy. There are only few reports of reversible impairment of vision in patients under therapy with carboplatin [2]. The manufacturer's guidelines report some cases of inflammation of the optical nerve with consecutive impairment of vision and even blindness.

Negative effects of chemotherapy on preexisting Parkinson's disease are also not often reported. Bower and Muenter [1] reported on a patient with Parkinson's disease who received taxol therapy for adenocarcinoma of unknown origin and suffered an acute but temporarily limited attack of her Parkinson's disease.

We report on a 64 year old patient with advanced ovarian cancer (FIGO stage IV, liver metastases) and a 10 year history of Parkinson's disease, which was well controlled by medication with levodopa and benserazide-hydrochloride (Madopar®). Due to her impaired status after radical operation, the patient received the first cycle of her chemotherapy at a 20% dose reduction – 280 mg/m^2 carboplatin and 480 mg/m^2 cyclophosphamide – and the third and fourth cycles were reduced even further (25%). The first cycles were tolerated well, levels of the tumor marker CA-12-5 decreased from 223 to 67 U/ml within 5 months, and the liver metastases could no longer be detected by ultrasonography.

After the second cycle of chemotherapy the patient complained about considerable impairment of vision (blurring) and permanent dizziness with increasing ataxia. The patient did not have any former history of diabetes or hypertension. Ophthalmic examination showed beginning cataracts in both eyes, which alone could not explain the patient's symptoms. A 40% deterioration of vision in the right eye and a 30% deterioration in the left eye had been diagnosed before the onset of chemotherapy. Intraocular pressure was normal in both eyes.

During the interval between the third and fourth cycles ataxia and subjective impairment of vision deteriorated in spite of an increase in the levodopa and benserazide-hydrochloride dose. Neurologic examination did not reveal any sign of damage to the optic nerve. To exclude the possibility of any damage to the central nervous system, cytologic liquor examination and a cranial computerized tomography (CT) scan were performed and showed no abnormality. After the fourth cycle the carboplatin/cyclophosphamide therapy was discontinued due to progressive deterioration of the patient's Parkinson's disease and continuing impairment of her vision. At 6 months thereafter, CA-12-5 levels increased to pre chemotherapy levels; however, intrahepatic metastases could not be detected. Ophthalmic examination did not show any further deterioration of vision. Nonetheless, no objective explanation was found for the patient's complaints about blurred vision. Because of tumor progression and impairment of vision

M. Linn · E. Brodt · K. Gutschow
Klinik Bad Trissl, Department of Gynecology,
Bad Trissl Strasse 83, D-83080 Oberaudorf, Germany

Martin Kolben (✉)
Frauenklinik der Technischen Universität München,
Klinikum rechts der Isar, Ismaninger Strasse 22,
D-81675 München, Germany
Tel.: + +49-89-4140-2441;
Fax + + 49-89-4140-4820

due to carboplatin/cyclophosphamide therapy, treosulfan treatment was started.

Patients with preexisting Parkinson's disease who are scheduled to receive carboplatin/cyclophosphamide chemotherapy should be advised of the possibility of deterioration of their Parkinson's disease and impairment of their vision.

References

1. Bower JH, Muenter MD (1995) Temporary worsening of parkinsonism in a patient with Parkinson's disease after treatment with paclitaxel for a metastatic grade IV adenocarcinoma. Mov Disord 10: 681–682
2. Rankin EM, Pitts JF (1993) Ophthalmic toxicity during carboplatin therapy. Ann Oncol 4: 337–338.