Cancer Chemother Pharmacol (1982) 7:219–221

Cancer Chemotherapy and Pharmacology

Case Report

Reversal of Recurrent Laryngeal Nerve Palsy Following VP16-213 Combination Therapy in a Patient with Metastatic Teratoma of the Testis

Eileen D. Rubery

Radiotherapeutic Centre, Addenbrooke's Hospital
Hills Road, Cambridge, Great Britain

Summary. *Two years after para-aortic node radiotherapy following removal of a non-seminomatous germ cell tumour (NSGCT) of the left testis, M. R., a 32 year old caucasian male developed haemoptysis and a hoarse voice. Chest x-ray revealed a left hilar mass and serum alphafoetoprotein (AFP) and β-human chorionic gonadotrophin (βHCG) levels were elevated. In spite of VB3 [1] therapy plus cis-platinum and mediastinal radiotherapy his voice remained hoarse, although serum markers returned to normal, and the hilar mass was reduced in size.*

Four months after stopping therapy serum AFP levels began to rise, although no clinical evidence of recurrence could be discovered in abdomen, brain or chest.

Chemotherapy was restarted using VP16-213 + bleomycin + cis-platinum [2]. After the first course of therapy the serum AFP level fell to normal and his hoarse voice disappeared.

The patient received five courses of the above regimen, following which complete remission has been maintained for 7 months to date.

This case suggests that VP16-213 combined with bleomycin + cis-platinum has great activity against NSGCT of the testis and may have a different spectrum of activity from vinblastine, bleomycin, and cis-platinum, making it a valuable addition to the drugs available for the management of these tumours.

In this patient it would seem the complete eradication of the metastatic mass allowed complete and immediate recovery of function of the trapped nerve in spite of it having been paralysed for 15 months.

Introduction

Nerve palsies due to pressure from malignant disease are rarely relieved by radiotherapy or chemotherapy. It is frequently suggested that this is due to the malignant process having permanently damaged the nerve so that, although the disease has been treated, the damage done prior to treatment cannot be reversed.

In the case reported here failure to achieve complete resolution of a hilar mass with initial chemotherapy was accompanied by failure of resolution of the recurrent laryngeal palsy. However following relapse of the AFP-secreting component of the disease, almost certainly at the hilum of the lung, more effective chemotherapy using VP16-213 resulted in immediate recovery of the recurrent laryngeal palsy concomittant with improvement in the chest x-ray. Normal serum AFP levels and a stable chest x-ray have now been maintained for 7 months.

Case History

M. R. presented in February 1977, age 30 years, with a left testicular swelling reported as malignant teratoma-intermediate at orchidectomy. Chest x-ray, lymphangiogram, and IVP were normal and he was treated with para-aortic and left inguinal radiotherapy (5,000 cGy in 5 weeks) using opposed fields. No serum AFP or βHCG levels are available for this time.

In April 1979 he relapsed with haemoptysis, a hoarse voice and weight loss, and chest x-ray showed a left hilar mass. Clinically he had bilateral gynaecomastia and his serum AFP level was 2,560 MRC units/ml with a serum βHCG of 2,150 MIU/ml. All other investigations were normal.

He commenced chemotherapy on 30 April 1979 (Table 1) with immediate improvement but incomplete resolution of the left hilar shadow. Serum AFP and βHCG levels fell to normal after the first course of chemotherapy (Fig. 1).

In view of the persistent hilar opacity and recurrent laryngeal palsy therapy was completed with mediastinal radiotherapy 3,500 cGy in 18 fractions over 23 days.

Three months after cessation of therapy his serum AFP level began to rise. Abdominal CAT scan, brain CAT scan, and liver scan were normal. There was some increased shadowing in the left hilum but this was consistent with post-radiotherapy changes.

Send offprint requests to E. D. Rubery at the above address

0344-5704/82/0007/0219/$01.00

After four consecutive rising AFP, levels chemotherapy to a presumed tumour relapse at unknown site was commenced using VP16-213, bleomycin, and cis-platinum (Table 1). After the first course of VP16-213 the hilar shadow had shrunk, the patient's voice was no longer hoarse and the serum AFP level returned to normal (Fig. 1). Since completion of five courses of chemotherapy the patient has been in complete marker and clinical remission for 7 months.

Conclusion

The response of this patient's recurrence to VP16-213 + bleomycin + cis-platinum therapy was dramatic and rapid with return of normal voice timbre after the first course of therapy. This was particularly surprising in view of the fact that the patient had been continually hoarse for over one year.

Although follow up on this patient is short at 7 months from cessation of therapy there is no doubt the degree of response of the disease was superior to the response obtained with Samuels' VB 3 regime + cis-platinum.

Although the dose of VP16-213 had to be kept low due to reduced tolerance by this patient, already heavily treated for his first relapse, the increased

Table 1. Chemotherapy regimes used

Chemotherapy regimes	Number of courses	Dates of therapy
Vinblastine 0.4 mg/kg i.v. in divided dose days 1 and 2 + Bleomycin 30 mg/day by infusion over 24 h for 5 days	4	30. 4. 79–26. 9. 79 (relapse 1)
Cis-platinum 100 mg/m^2 i.v.	2	2. 10. 79–15. 10. 79 (relapse 1)
VP 16-213 100 mg/m^2 } daily for 3 days [a] cis-platinum 20 mg/m^2 } bleomycin 30 mg i.v. weekly for 3 weeks	5	9. 7. 80–8. 11. 80 (relapse 2)

Vigorous saline hydration was maintained during all courses of chemotherapy
[a] Vinblastine 0.2 mg/kg day 1 only was substituted for cis-platinum in the fourth course of therapy due to signs of renal toxicity

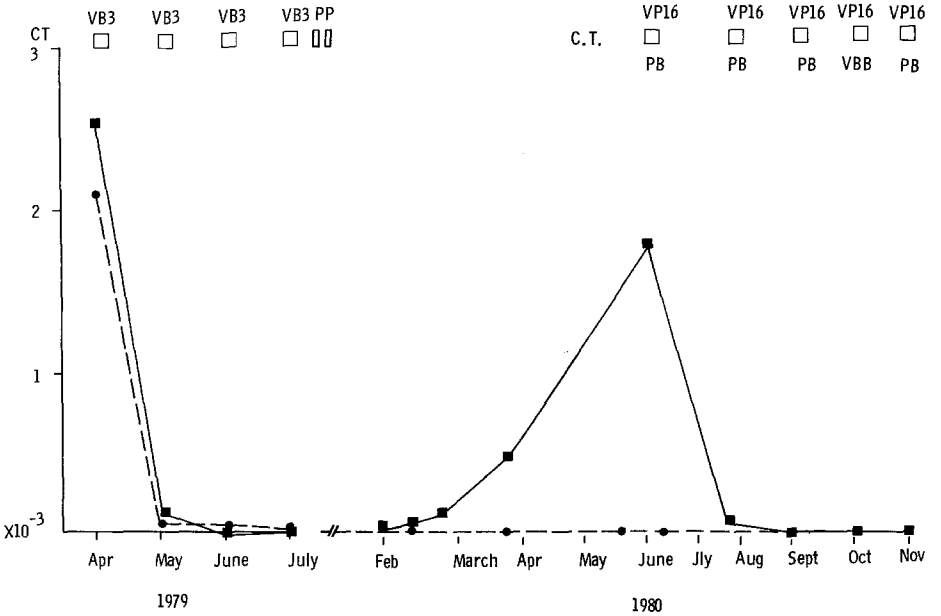

Fig. 1. Serum AFP and βHCG levels during first and second relapse and subsequent therapy. (■———■) Serum alphafoeto protein, MRC units/ml. (●– – –●) Serum β Human Chorionic Gonadotrophin. MIU/ml. VP16: VP16-213; P: Cis-Platinum; B: Bleomycin; VB: Vinblastine; VB 3: Samuels' VB3 regime [1]

patient tolerance of this regime was also noticeable. The nausea produced by the VP16-213 was moderate, and the absence of muscle cramps and aching joints consequent upon high dose vinblastine therapy was remarked upon spontaneously by the patient.

This regime of VP16-213 bleomycin and cis-platinum would appear an effective, potentially curative regime for patients who have relapsed on vinblastine regimes.

Note added in Proof

Between twelve and fifteen months from the end of chemotherapy the Serum AFP level started to rise at present is over 1,000 MRC units/ml. The patient continues symptom-free.

References

1. Samuels ML, Lanzotti VJ, Holoye PY, Boyle LE, Smith TL, Johnson DE (1976) Combination chemotherapy in germinal cell tumours, Cancer Treat Rev 3: 185
2. Williams SD, Einhorn LH (1980) Testicular tumours, management, and treatment. Masson Publishing USA Inc, New York, p 169

Accepted July, 1981