

Letter to the Editor

Cisplatin in Patients with a Non-functioning Kidney

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Pickering *et al.* [1] reported, as have others, [2, 3] that Cisplatin (Cis-diammine dichloroplatinum (DDP); 'Neoplatin') may be given safely in the presence of impaired renal function provided care is taken with hydration and forced diuresis [4]. We report here that the presence of only one functioning kidney is not a contra-indication to the use of Cisplatin.

Four patients referred for treatment were found to have a non-functioning kidney on a routine pre-treatment IVP. This was due to ureteric obstruction by tumour mass, leading to acute unilateral renal damage. Details of hydration and diuresis programme is shown in Table 1. Three patients with Carcinoma of the ovary were given Cisplatin 50 mg/m² alone as a bolus intravenously at three weekly intervals for five courses; one patient (A.H.) with disseminated extra gonadal malignant tetratoma was given Cisplatin 10-20 mg/m² (total Cisplatin dose 500 mg/m²) daily for five days with VP16

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Table 1. High dose Cisplatin

DAY 1	Hydration
	3 litres of saline each with 10 mmol KCl
DAY 2	Diuresis
	5 litres N/Saline + 10 mmol KCl. Each litre is run over 5 hours.
	1 litre 10% mannitol—to run in through Y piece with the saline.
	(Keep mannitol bag higher than saline bag or back flow of saline mannitol will occur due to difference in flow rates.)
	Cisplatin. Give 50 mg/m ² as a bolus i.v. one hour after beginning of saline infusion.

(100 mg/m²) every three weeks for a total of six courses. Oral high dose methotrexate was given between each course. No gross change in renal function was seen in any patient (Table 2) suggesting that in the short term cisplatin may be given safely, at this dosage, in patients with one functioning kidney.

We (unpublished findings) and others [5, 6] have shown that tubular enzymuria may increase during and shortly after treatment but the long term significance of these findings is not clear.

Table 2. Renal function during Cisplatin treatment

		Pretreatment	Weeks of treatment			
			3	6	9	12
Patient W.B. (Female 59 yr)	Creatinine clearance—ml/min	53	54	59	48	56
	Serum creatinine—μmol/litre	89	87	98	98	90
	Serum urea—mmol/litre	6.1	6.6	6.8	5.5	8.4
Q.H. (Female 61 yr)	Creatinine clearance—ml/min	65	66	48	57	53
	Serum creatinine—μmol/litre	100	105	124	103	105
	Serum urea—mmol/litre	6.5	7.9	7.9	7.0	7.3
A.H. (Male 45 yr)	Creatinine clearance—ml/min	51	45	48	47	51
	Serum creatinine—μmol/litre	121	130	124	125	133
	Serum urea—mmol/litre	3.5	6.2	5.5	6.4	6.5
L.D. (Female 59 yr)	Creatinine clearance—ml/min	20	49	34	28	28
	Serum creatinine—μmol/litre	90	80	92	85	100
	Serum urea—mmol/litre	4.9	4.5	3.4	9.3	6.5

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