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The Role of Three Cisplatin-based Chemotherapy Regimens in the Treatment of Advanced Non-small Cell Lung Cancer

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CISPLATIN IS one of the most effective agents in the treatment of non-small cell lung cancer (NSCLC) [1]. We report the results of a retrospective comparison of three cisplatin-based combinations administered in advanced inoperable NSCLC patients in our centre between May 1982 and June 1990.

The first trial started following the BOMP regimen (bleomycin 6 mg/m^2 on days, 1, 2, 10, 11; vincristine 1 mg/m^2 on days 1, 10; mitomycin-C 8 mg/m^2 on day 1; cisplatin 50 mg/m^2 on day 3; every 3 weeks); it was designed in May 1982. 48 patients were enrolled and the response rate was 37.5%, with a median duration of response of 5 months and a median overall survival of 5.5 months (Table 1). The toxicity was mild [2].

The second study was undertaken following Goldie and Coldman's proposal [3] regarding the rationale for the use of alternating non-cross resistant chemotherapy. Since the CAMP regimen had been reported to be effective in NSCLC, we utilised three out of four drugs from such a combination, replacing doxorubicin with epirubicin: the CEP regimen was designed (cyclophosphamide 500 mg/m^2 on day 1; 4'epirubicin 60 mg/m^2 on day 1; procarbazine 100 mg/m^2 on days 1 to 10; every 3 weeks) and 38 patients entered the alternating BOMP–CEP chemotherapy from February 1985 to March 1987 [4]. The comparison of results with the previous BOMP investigation suggest that CEP added no real benefits to the patient outcome.

On June 1988 the BEMPV regimen was introduced (bleomycin 6 mg/m^2 on days 1, 2, 8, 9; vindesine 3 mg/m^2 on days 1, 8; mitomycin-C 8 mg/m^2 on day 1; cisplatin 60 mg/m^2 on day 15; VP-16 120 mg/m^2 on days 15 to 17; every 4 weeks) to verify whether the addition of more active drugs such as vindesine and etoposide could improve response rate and survival. 31 patients were treated without any significant improvement (unpublished data).

Even if the imbalance of limited/extended disease ratio between the three groups may partially negate the results, it is interesting to note that the median overall survival in the group treated with BEMPV was at 8 months, slightly longer than for BOMP–CEP (7.5 months) and longer still than BOMP (5 months). However, this survival advantage must be equated with an increased number of hospitalisations in the BEMPV group, as therapy was less well tolerated and toxic side-effects were more severe than those seen in the BOMP group, thus compromising the compliance of treatment and the quality of life. However, the results from our cisplatin combinations were fully comparable with other published data.

In the light of our experience and with reference to related reports [5], we consider chemotherapy still an investigational modality in the treatment of advanced NSCLC. At present we suggest its use in highly motivated patients with good performance status who give informed consent to enter well designed clinical trials. An effective supportive care, associated with palliative radiotherapy if needed, seems to be the most reasonable choice in an out-trial setting.

Table 1. Patients' features per chemotherapy regimen

	BOMP	BOMP–CEP	BEMPV
Patients/evaluable	48/40	38/36	31/29
Age			
Median (years)	60	60	58
Range (years)	42–74	44–74	44–74
Male/female	47/1	37/1	27/4
ECOG			
Median	1	1	1
Range	0–4	0–4	0–4
Histology			
Squamous	29	27	14
Adenocarcinoma	5	3	9
Large cell	12	8	4
Other	2	0	4
Disease			
Limited/extensive	26/22	16/22	16/15
Response			
CR	0/40	2/36	1/29
PR	15/40	11/36	5/29
SD	11/40	9/36	14/29
PD	14/40	14/36	9/29
MDR	5	6.5	5
MOS	5.5 (1–28)	7.5 (1–30)	8 (1–25)

CR, Complete response; PR, partial response; SD, stable disease; PD, progressive disease; MDR, median duration of response (months); MOS, median overall survival (months).

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