

Table 1. Patients' pretreatment characteristics

	5-FU/LV + TCNU
Sex (M/F)	10/8
Median age, years (range)	51 (24-66)
Median performance status (range)	1 (0-2)
Primary tumour <i>in situ</i>	5
Local recurrence	1
Sites of metastatic disease	
Liver	11
Lung	3
Peritoneal carcinosis	2
Bone	1
No. of tumour sites	
1	11
2	7
3	-

M, male; F, female.

III and IV leucopenia was present in two cycles (6%), grade III and IV thrombocytopenia in 6 (19%) and 2 (6%) courses, respectively. No haemorrhage was observed and platelet transfusions were not required. 1 patient was hospitalised during the first cycle of 5-FU/LV + TCNU because of grade 4 leucopenia and fever which resolved with antibiotics. Nausea and vomiting in 10 cycles (32%) were associated with tauromustine and responded favourably to 10-20 mg (oral) metoclopramide. Diarrhoea and mucositis were not seen and alopecia did not occur.

Among the 18 patients, there were 2 complete remissions (CR), 5 partial remissions, 6 patients with stable disease and 5 patients with progressive disease. Thus, the overall response was 39% (95% confidence interval: 17-65%). 1 complete responder had presented with bilateral lung metastases, which disappeared completely on the chest X-ray. A solitary lung metastasis recurred 3 months after discontinuation of treatment, and responded (partially) to retreatment. The other complete responder had peritoneal carcinosis and a subcutaneous nodule, the latter of which disappeared at clinical examination. The peritoneal carcinosis was not re-evaluated. The median survival of all patients was 12 months (range 3-22). Both CR patients survived for 22 months.

It is tempting to speculate that the antagonism between TCNU and 5-FU that has been demonstrated to exist *in vitro* [6] when the agents are employed simultaneously, may have caused the discouraging outcome of our previous 5-FU/TCNU trial [5]. It is of interest that a similar antagonism has never been observed in combinations of 5-FU with the nitrosurea derivative methyl-CCNU, despite the fact that over 700 patients have taken part in clinical trials [10]. Provided that the agents are applied in the proper time setting, TCNU does not appear to antagonise the activity of 5-FU and LV. Further study will be required to demonstrate any synergism in the clinic.

alone, high-dose leucovorin plus fluorouracil, or sequential methotrexate, fluorouracil and leucovorin: a randomized trial of the Northern California Oncology Group. *J Clin Oncol* 1989, 7, 1427-1436.

- Gundersen S, Dombernowsky P, Cavalli F, *et al.* TCNU (LS 2667), a new active drug in the treatment of advanced colorectal cancer. *Eur J Cancer Clin Oncol* 1989, 25, 1095-1097.
- Taal BG, ten Bokkel Huinink WW, Franklin HR, McVie JG. 5-Fluorouracil plus tauromustine in advanced colorectal cancer: unexpected negative results. *Eur J Cancer* 1990, 26, 856.
- Hartley Asp B, Alenfall J. Schedule dependent antagonism between tauromustine and 5-fluorouracil with or without folinic acid in the human colon cancer cell line HT-29. *J Cell Pharmacol* 1991, 2, 179-183.
- ACCM project. Modulation of fluorouracil by leucovorin in patients with advanced colorectal cancer: evidence in terms of response rate. *J Clin Oncol* 1992, 10, 896-903.
- Laufman LR, Kreczowski KA, Roach R, Segal M. Leucovorin plus fluorouracil: an effective treatment for metastatic colon cancer. *J Clin Oncol* 1987, 5, 1394-1400.
- Taal BG, ten Bokkel Huinink WW, Rodenhuis S. Combination chemotherapy with tauromustine (TCNU), 5 fluorouracil and leucovorin in advanced colorectal carcinoma: a dose-finding study. *Ann Oncol* 1993, 4, 81-82.
- Kemeny N. The systemic chemotherapy of hepatic metastases. *Semin Oncol* 1983, 10, 148-157.

Acknowledgements—This work was supported in part by Kabi Pharmacia, Helsingborg, Sweden.

Eur J Cancer, Vol. 29A, No. 13, pp. 1917-1918, 1993.

Printed in Great Britain
0959-8049/93 \$6.00 + 0.00
© 1993 Pergamon Press Ltd

Combination IL-2 and Cisplatin: a Promising Treatment for Bronchioloalveolar Carcinoma?

V. Trillet-Lenoir, D. Arpin, A. Mercatello, R. Oskham, P.A. Palmer, P.J. Souquet, F. Champel, J. Boyer, J.F. Cordier, C.R. Franks, J.F. Moskovtchenko, J. Brune and T. Philip

RECOMBINANT INTERLEUKIN 2 (IL2) has an anti-tumoral effect in some chemoresistant carcinomas including non-small cell lung cancer (NSCLC) [1, 2]. Possible synergy of IL2 and chemotherapy has been reported in several tumours including NSCLC [3]. Similar immunoaugmenting effects have been reported *in vitro* [4] and *in vivo* [5] with cisplatin, one of the most active drugs in NSCLC. We investigated the feasibility and efficacy of combined cisplatin and IL2 in patients with

Correspondence to V. Trillet-Lenoir.

V. Trillet-Lenoir, D. Arpin, J.F. Cordier and J. Brune are at the Lung Department, Hopital Louis Pradel, 28 Avenue Doyen Lepine 69394 Lyon; A. Mercatello and J.F. Moskovtchenko are at the Immunotherapy Department, Hopital Edouard Herriot; P.J. Souquet is at the Centre Hospitalier Lyon Sud, Hospices Civils de Lyon, France; R. Oskham, P. Palmer and C.R. Franks are at the Eurocetis, Amsterdam, The Netherlands; F. Champel is at the P.A.R.O.T., Lyon; J. Boyer is at the Lung Department, Centre Hospitalier de Vienne; and T. Philip is at the Centre Léon Bérard, Lyon, France.

Revised 19 Apr. 1993; accepted 20 May 1993.

- Ehrlichman C, Fine S, Wong A, Elhakim T. A randomized trial of fluorouracil and folinic acid in patients with metastatic colorectal carcinoma. *J Clin Oncol* 1988, 6, 469-475.
- Petrelli NO, Douglass H, Herrera L, *et al.* The modulation of fluorouracil with leucovorin in metastatic colorectal carcinoma: a prospective phase III trial. *J Clin Oncol* 1989, 7, 1419-1426.
- Valone FH, Friedman MA, Wittlinger PS, *et al.* Treatment of patients with advanced colorectal carcinomas with fluorouracil

histologically documented evidence of progressive inoperable NSCLC. Treatment consisted of IL2 (Eurocetus B.V.) as a continuous daily infusion 18×10^6 U/m² days 1–5 and 8–12 followed by cisplatin 100 mg/m² on day 15. Tumour evaluation was performed on day 22 and two additional monthly cycles of 5 days IL2 + cisplatin were planned in patients without progressive disease.

Patient 1 with recurrent epidermoid carcinoma was considered stable for the three cycles and died from relapse at 13 months. In patient 2 with bronchioloalveolar carcinoma progressing on platinum-containing chemotherapy, there was a 25% decrease in the measurable lesions on computed tomography scan. She suffered a myocardial infarction and died 8 months after initiation of treatment. Patient 3 was referred with bilateral nodular lesions (Fig. 1a) from a bronchioloalveolar carcinoma previously treated with platinum-containing chemotherapy and radiotherapy. Treatment was interrupted on day 15 when he developed tracheo-oesophageal fistula and an oesophageal prosthesis had to be inserted. Partial response was observed (Fig. 1b) and maintained for 5 months when the patient died from acute respiratory distress. The study was prematurely closed after 3 patients because of toxicity.

The data suggest that IL2 and cisplatin may have activity in advanced bronchiolo-alveolar carcinoma, a tumour in which no effective therapy has been described to date. This observation

needs to be confirmed in a larger study using less toxic treatment such as lower doses of IL2 which have previously shown activity in NSCLC [6].

1. Négrier S, Philip T, Stoter G, *et al.* Interleukin 2 with or without LAK cells in metastatic renal cell carcinoma: a report of a European multicentre study. *Eur J Cancer Clin Oncol*, 1989, 25 (suppl. 3), S21–S28.
2. Rosenberg SA, Lotze MT, Muul LM, *et al.* Observations on the systemic administration of autologous lymphokine-activated killer cells and recombinant interleukin-2 to patients with metastatic cancer. *N Engl J Med* 1985, 313, 1485–1492.
3. Paciucci PA, Holland JF, Ryder JS, *et al.* Immunotherapy with interleukin-2 by constant infusion with and without adoptive cell transfer and with weekly doxorubicin. *Cancer Treat Rev* 1989, 16 (suppl. A), 67–81.
4. Rihova B, Drobnick J, Riha I. Immunostimulatory effects of diamine dichloro platinum. *Immunol Lett* 1984, 8, 57–60.
5. Khayat D, Borel C, Antoine E, *et al.* Highly active chemo-immunotherapy (cisplatin-IL2- α 2 interferon) in the treatment of metastatic malignant melanoma. *Proc Am Soc Clin Oncol* 1992, 1213, 353.
6. Yang SC, Owen-Schaub L, Mendiguren-Rodriguez A, *et al.* Combination immunotherapy for non-small cell lung cancer. Results with interleukin-2 and tumor necrosis factor- α . *J Thorac Cardiovasc Surg* 1990, 99, 8–13.

Acknowledgements—This work was supported by the Comité Départemental du Rhône, Ligue Nationale Française contre le Cancer and by Eurocetus B.V.

Eur J Cancer, Vol. 29A, No. 13, pp. 1918–1919, 1993.
Printed in Great Britain
0959-8049/93 \$6.00 + 0.00
© 1993 Pergamon Press Ltd

Kaposi's Sarcoma in the Swiss Canton of Vaud, 1974–1990

Fabio Levi, Silvia Franceschi
and Carlo La Vecchia

CASABONA *et al.* [1] described trends in AIDS-associated malignancies in Catalonia, Spain, and made a plea for sources of information other than AIDS surveillance data. Kaposi's sarcoma (KS) is of special interest since its incidence rates vary greatly worldwide. The proportions of AIDS patients presenting with KS differ by several-fold, chiefly on account of the different local predominance of homosexual and bisexual men. There is, however, limited but growing evidence that even before the spread of AIDS, incidence rates of KS also varied widely within industrialised countries. PreAIDS rates were 0.40/100 000 men in Sweden [2], 0.29/100 000 in U.S.A. [3], and only 0.14/1 000 000 men in England and Wales [4].

Correspondence to S. Franceschi.

F. Levi is at the Registre Vaudois des Tumeurs and Institut Universitaire de Médecine Sociale et Préventive, CHUV, Falaises 1, 1011 Lausanne, Switzerland; S. Franceschi is at the Epidemiology Unit, Aviano Cancer Center, Via Pedemontana Occ., 33081 Aviano (PN), Italy; and C. La Vecchia is at the Istituto di Ricerche Farmacologiche 'Mario Negri', Via Eritrea 62, 20157 Milano, and Istituto di Biometria e Statistica Medica, Università degli Studi di Milano, Via Venezian 1, 20133 Milano, Italy.

Received 7 May 1993; accepted 26 May 1993.

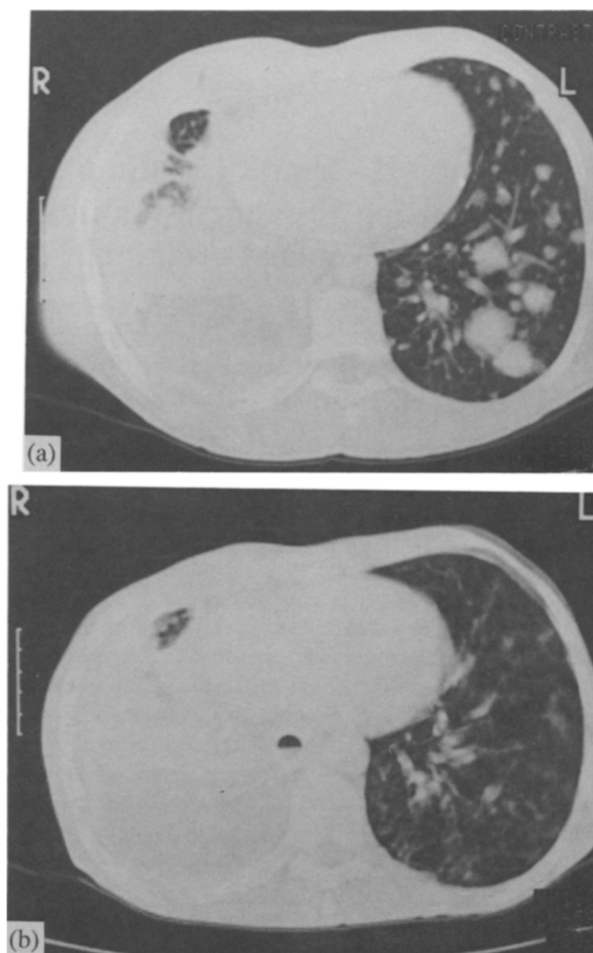


Fig. 1. Patient 3 presented evidence of partial tumour regression. Bilateral tumour nodules detectable on contiguous slices (a) have decreased by more than 50% after treatment (b). Please note oesophageal dilatation due to oesophageal prosthesis on the latter.