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Acknowledgements—We thank Dr Kiyoshi Kiamura, the 3rd Department of Internal Medicine, Faculty of Medicine, and many attending physicians, Department of Hematology-Oncology, Institute of Medical Science, University of Tokyo, for kindly supplying the clinical data of the patients.

*Eur J Cancer*, Vol. 27, Suppl. 4, p. S25, 1991
Printed in Great Britain

0277-5379/91 $3.00 + 0.00


# Interferon Alfa-2b in the Treatment of Chronic Myelogenous Leukaemia

**Masami Bessho, Nobutaka Kawai and Kunitake Hirashima**

## ABSTRACT

Recent reports have indicated that alpha interferon can be an effective treatment for patients with chronic myelogenous leukaemia (CML) [1]. In order to evaluate the clinical usefulness of interferon alfa-2b, we treated six patients with chronic phase CML and observed their clinical course.

The patients consisted of four males and two females, aged between 39 and 58 years, who had previously received either treatment with busulfan (four patients) or no therapy (two patients). Interferon alfa-2b was administered intramuscularly at a dose of 3-10 million units (MU)/body, either daily or three times per week, for more than 8 weeks.

All six patients showed a fall in white blood cell count from a mean of 101.8 x 10$^9$/L (range 15.6-330) before treatment to a mean of 25.7 x 10$^9$/L (range 4.0-117) after treatment with interferon alfa-2b. Haemoglobin remained largely unchanged, and platelet counts fluctuated. Two of the six patients also showed a slight reduction in the percentage of Ph$^1$-positive clones (to 98% and 96%, respectively).

Complete haematological response was achieved in four patients, partial haematological response in one and no response in one. All six patients are alive at a mean of 69 months (range 38-108 months) from diagnosis and are either in chronic phase (five patients) or post bone marrow transplant (one patient).

Major side effects of alpha interferon included fever, general fatigue, and nausea, but all were tolerable.

In conclusion, alpha interferon was useful for controlling blood cell counts in chronic phase CML patients, with tolerable side effects. Five of six patients achieved long-term haematological remission, and alpha interferon slightly reduced the fraction of Ph$^1$-positive clones in two patients.

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