VINBLASTINE SULPHATE (Group 3)

A. Evidence for carcinogenicity to humans (*inadequate*)

No epidemiological study of vinblastine sulphate as a single agent was available to the Working Group. Occasional case reports of exposure to vinblastine sulphate, especially in the presence of concurrent therapy with other putative carcinogens, such as ionizing radiation, alkylating agents and other potent oncotherapeutic drugs, do not constitute evidence of carcinogenesis[1].

In a large systematic follow-up of patients with Hodgkin's disease treated with an intensive chemotherapeutic combination including vinblastine (plus adriamycin [see p. 81], bleomycins [see p. 134] and dacarbazine [see p. 184]) but no alkylating agent, preliminary evidence suggested no excess of acute nonlymphocytic leukaemia in the first decade after therapy[2,3].

B. Evidence for carcinogenicity to animals (*inadequate*)

No evidence of carcinogenicity was found after intraperitoneal administration of vinblastine sulphate to mice and rats or after its intravenous administration to rats, but it has not been adequately tested at high doses[1].

C. Other relevant data

No data were available on the genetic and related effects of vinblastine sulphate in humans.

Vinblastine sulphate weakly induced micronuclei in a single study using low doses, but it did not induce dominant lethal mutations in mice treated *in vivo*. It induced chromosomal aberrations but not mutation in Chinese hamster cells *in vitro* and was not mutagenic to bacteria[4].

References

[1]*IARC Monographs, 26*, 349-363, 1981

[2]Santoro, A., Viviani, S., Villarreal, C.J.R., Bonfante, V., Delfino, A., Valagussa, P. & Bonadonna, G. (1986) Salvage chemotherapy in Hodgkin's disease irradiation failures: superiority of doxorubicin containing regimens over MOPP. *Cancer Treat. Rep., 70*, 343-348

[3]Valagussa, P., Santoro, A., Fossati Bellani, F., Franchi, F., Banfi, A. & Bonadonna, G. (1982) Absence of treatment-induced second neoplasms after ABVD in Hodgkin's disease. *Blood, 59*, 488-494

[4]*IARC Monographs, Suppl. 6*, 561-562, 1987