



Neem leaf extract induces significant tumor reduction in Ehrlich carcinoma.

Biotech Business Week. June 14, 2004 p98.

Health & Medicine Week. June 14, 2004 p579.

Hematology Week. June 14, 2004 p65.

Pharma Business Week. June 14, 2004 p101.

Cancer Weekly. June 15, 2004 p143.

Biotech Week. June 16, 2004 p97.

Immunotherapy Weekly. June 16, 2004 p86.

Drug Week. June 18, 2004 p325.

Obesity, Fitness & Wellness Week. June 19, 2004 p589.

Full Text: COPYRIGHT 2004 NewsRX

2004 JUN 18 - (NewsRx.com & NewsRx.net) -- **Neem** leaf extract induces significant tumor reduction in murine Ehrlich carcinoma.

"Conditional growth inhibition of murine Ehrlich carcinoma (EC) and B16 melanoma (B16Mel) was observed, following treatment of mice (Swiss and C57BL/6) with aqueous extract of neem (*Azadirachta indica*) (1 unit/mice/week for 4 weeks) either before or after inoculation of 1×10^6 tumor cells. Tumor inoculation after weekly injections for 4 weeks with **neem** leaf preparation (NLP) induced significant reduction of tumor growth (both EC and B16Mel) and increased survivability of mice.

"On the other hand, NLP treatment after tumor inoculation demonstrated no tumor growth inhibition in the NLP treated group in comparison to the PBS treated control," scientists writing in the journal *International Immunopharmacology* report.



"No direct cytotoxic effect of NLP towards EC and B16Mei tumor cells was observed in vitro," reported R. Baral and coauthors. "The spleen cells of NLP treated mice when mixed with inoculum of B16Mel tumor cells and injected into a group of mice, tumor growth was found to be significantly reduced and survivability of the tumor hosts increased remarkably in comparison to mice inoculated with tumor along with normal spleen cells. Concanavalin A (ConA) induced proliferation of lymphocytes from NLP treated mice was significantly higher than the lymphocytes of untreated mice."

Baral continued, "In in vitro, NI-P by itself had no proliferative effects on lymphocytes but it co-stimulated ConA induced mitogenesis. NLP induced lymphocytosis as evidenced by increased lymphocyte count in blood as well as spleen. Flow cytometric evidence suggested that increase in CD4⁺ and CD8⁺ T cells accounted for lymphocytosis.

"The conditional tumor growth retardation, observed in mice treated with NI-P before tumor inoculation, may be regulated by NLP mediated immune activation, having prominent role in the cellular immune function of the tumor host," investigators concluded.

Baral and colleagues published their study in *International Immunopharmacology* (Neem (*Azadirachta indica*) leaf mediated immune activation causes prophylactic growth inhibition of murine Ehrlich carcinoma and B16 melanoma. *Int Immunopharmacol*, 2004;4(3):355-366).

Additional information can be obtained by contacting R. Baral, CNCI, Department Immunoregulat & Immunodiagnost, 37 SP Mookherjee Rd., Calcutta 700026, W Bengal, India.

The publisher of the journal *International Immunopharmacology* can be contacted at: Elsevier Science BV, PO Box 211, 1000 AE Amsterdam, Netherlands.

This article was prepared by Drug Week editors from staff and other reports. Copyright 2004, Drug Week via NewsRx.com & NewsRx.net.

Record Number: A118047805