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 1: [Nutr Cancer](#). 2007;58(2):213-21.**Black tea-induced decrease in IL-10 and TGF-beta of tumor cells promotes Th1/Tc1 response in tumor bearer.****[Mandal D](#), [Bhattacharyya S](#), [Lahiry L](#), [Chattopadhyay S](#), [Sa G](#), [Das T](#).**

Bose Institute, P-1/12 CIT Scheme VII M, Kolkata, 700054, India.

Several lines of evidence support that impairment of host immune function by tumor may be related to several strategies of tumor escape from immunosurveillance. We found that in Ehrlich's ascites carcinoma (EAC)-bearing mice, the tumor cells secrete immunosuppressive cytokines, transforming growth factor beta (TGF-beta) and interleukin-10 (IL-10) that induce a general T helper cells type 2 (Th2) dominance dampening the T cytotoxic cells type 1 (Tc1) population. Interestingly, black tea at the antitumor dose of 2.5% significantly reduced TGF-beta and IL-10 in tumor cells in vivo, thereby preventing Th2 dominance in the tumor bearers and initiating a Th1/Tc1 response. Thus, apart from its anticancer activity, this popular beverage also rejuvenates cancer immunosurveillance by modulating cytokine profiles and establishing Th1/Tc1 dominance in the tumor-bearing host.

PMID: 17640168 [PubMed - in process]

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