Lycopene Supplementation and Disease Risk
Brain Cancer Critical Findings

Disease type	First Author	Study Title and Complete Citation	Date	Abstract	Study Type	G.Tom +, N, -	P.Tom +, N, -	F.Tom +, N, -	Lyco +, N, -	Other +, N, -
Cancer: brain (Glioma)	Puri T	Lycopene in treatment of high-grade gliomas: a pilot study. Puri T, Goyal S, Julka PK, Nair O, Sharma DN, Rath GK. Neurol India. 2010 Jan-Feb;58(1):20-3	2010	BACKGROUND: The therapeutic benefit of lycopene is well established for carcinoma prostate in various clinical trials and has been proposed for other malignancies including high-grade gliomas. SETTING AND DESIGN: Randomized placebo control study in the Department of Radiation Oncology of a teaching hospital. MATERIALS AND METHODS: Fifty patients with high-grade gliomas were treated with surgery followed by adjuvant radiotherapy and concomitant paclitaxel. Patients were randomized to receive either oral lycopene (Group A) 8 mg daily with radiotherapy or placebo (Group B). Pre-and post-radiotherapy plasma lycopene levels were measured using high-precision liquid chromatography. McDonald's criteria were used for response assessment. Magnetic resonance imaging (MRI) of brain and Single Photon Emission Computed Tomograph (SPECT) were done three-monthly for two visits and six-monthly thereafter. Primary endpoint was response at six months post radiotherapy. Statistical Analysis Used : The data was analyzed using SPSS Software v10.0 (SPSS corporation Chicago IL) by applying Student's t-test, ANOVA F test, Chi-square test and Karl Pearson Correlation Coefficient. RESULTS: Median age was 38 years. The commonest histology was glioblastoma multiforme (n = 32). Pre- and post-treatment plasma lycopene levels in the patients in Gropu A were 152 ng/ml and 316 ng/ml and in the patients in Group B were 93 ng/ml and 98 ng/ml (P = 0.009). There was non-significant differences in favor of lycopene between Group A and Group B with higher overall response at six months (P = 0.100), response at last follow-up (P = 0.171) and time to progression (40.83 vs. 26.74 weeks, P = 0.089)., The follow-up duration was significantly higher for Group A than Group B (66.29 vs. 38.71 weeks, P = 0.05). CONCLUSIONS: Addition of nutrition supplements such as lycopene may have potential therapeutic benefit in the adjuvant management of high-grade gliomas.	RCT				N Most endpoints ~~~~~ (-) f/u duration	