

Dietary Lycopene and Disease Risk

Endometrial 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: endometrial	Jeong NH	<p>Preoperative levels of plasma micronutrients are related to endometrial cancer risk.</p> <p>Jeong NH, Song ES, Lee JM, Lee KB, Kim MK, Yun YM, Lee JK, Son SK, Lee JP, Kim JH, Hur SY, Kwon YI.</p> <p>Acta Obstet Gynecol Scand. 2009;88(4):371-2.</p>	2009	<p>OBJECTIVE: To examine the relation between the plasma concentration of antioxidant micronutrients and endometrial cancer risk in Korean women.</p> <p>DESIGN: Hospital-based case-control study.</p> <p>SETTING: Seven tertiary medical institutes in Korea.</p> <p>POPULATION: Incidence of 28 endometrial cancer cases were identified and 140 age-matched controls selected for the same period.</p> <p>METHODS: Preoperative plasma concentrations of beta-carotene, lycopene, zeaxanthin plus lutein, retinol, alpha-tocopherol, and gamma-tocopherol were measured by reverse-phase, gradient high-pressure liquid chromatography. Conditional logistic regression was used to evaluate micronutrient effect after adjustment for body mass index (BMI), menopause, parity, oral contraceptive use, smoking status, and alcohol consumption status.</p> <p>MAIN OUTCOME MEASURES: Effect of micronutrients on endometrial cancer risk.</p> <p>RESULTS: The mean concentration of plasma beta-carotene ($p=0.001$), lycopene ($p=0.008$), zeaxanthin plus lutein ($p=0.031$), retinol ($p=0.048$), and gamma-tocopherol ($p=0.046$) were significantly lower in endometrial cancer patients than in controls. Plasma levels of beta-carotene (p for trend=0.0007) and lycopene (p for trend=0.007) were inversely associated with endometrial cancer risk across tertiles. Women in the highest tertile of plasma beta-carotene and lycopene had a 0.12-fold (95% confidence intervals (CIs) 0.03-0.48) and 0.15-fold (95% CIs 0.04-0.61) decreased risk of endometrial cancer compared to women in the lowest tertile, respectively. Other micronutrients such as zeaxanthin plus lutein (p for trend=0.142), retinol (p for trend=0.108), alpha-tocopherol (p for trend=0.322), and gamma-tocopherol (p for trend=0.087) showed no association with endometrial cancer risk.</p> <p>CONCLUSIONS: Plasma levels of beta-carotene and lycopene are inversely associated with the risk of endometrial cancer in Korean women.</p>	CC				(-) ↓ risk endometrial cancer	