

Plasma/Serum 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. DESIGN: Hospital-based case-control study. SETTING: Seven tertiary medical institutes in Korea. POPULATION: Incidence of 28 endometrial cancer cases were identified and 140 age-matched controls selected for the same period. 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. MAIN OUTCOME MEASURES: Effect of micronutrients on endometrial cancer risk. 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. 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	