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The effect of life style modifications and dietary approaches to stop hypertension (DASH) eating plan in patients with prehypertension

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The study was conducted on 32 patients (24 women, 8 men) between the ages of 20–64 who were admitted to Atatürk State Hospital diagnosed with prehypertension. For eight weeks, participants were randomly assigned to 3 groups; 1) advice only, 2) DASH eating pattern alone and 3) DASH eating pattern combined with life style modifications. Blood pressure measurements were repeated in the 4th and 8th weeks. Some serum biochemical parameters, anthropometric measurements, body compositions and physical activity levels were determined at the baseline after eight weeks of interventions. The nutritional status of the patients was determined by a 24-hour dietary food record. The median of BMI of the patients were 29.05 (26.2-32.05)kg/m². At the beginning of the research, the median of men and women's systolic and diastolic blood pressure were 130(125–135) mmHg and 85 (82.5–85) mmHg; 130(127.5–135) mmHg and 80(80-85) mmHg, respectively. The DASH diet significantly lowered systolic and diastolic blood pressure in women ($p<0.05$). DASH eating pattern combined with life style modifications lowered both systolic and diastolic blood pressure in women and just diastolic blood pressure in men ($p<0.05$). There was a positive and statistically significant correlation between sodium intake and systolic blood pressure measurements ($r=0.767$, $p=0.010$). There was a negative and statistically significant correlation between potassium ($r=-0.780$, $p=0.008$), magnesium ($r=-0.833$, $p=0.003$), iron($r=-0.833$, $p=0.003$), copper ($r=-0.793$, $p=0.006$) intake and systolic blood pressure. There was a positive and statistically significant correlation between waist circumference and systolic blood pressure ($r=0.699$, $p=0.025$). In conclusion, for patients with prehypertension the DASH diet can lower blood pressure alone or combined with life style modifications.

Biography

Gül Kızıltan has completed PhD in 1998 from Hacettepe University, Institute of Health Science, Nutrition and Dietetics Program. She has been working at Başkent University since 1993. She is a Vice Dean of Başkent University Health Science Faculty and Head of Nutrition and Dietetic Department. She has published more than 50 papers and presented more than 100 researches in national and international scientific platforms and worked in several projects as a Coordinator and Researcher.

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