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Editorial

Legumes: A component of a healthy diet

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In the December issue of the Journal of Research in Medical Sciences, Alizadeh et al[1] have demonstrated that consumption of a legumes-rich hypocaloric diet for 6 weeks reduced some anthropometric measures such as waist, hip, triceps, biceps, subscapular and suprailiac skin fold thicknesses among healthy premenopausal women with central obesity. Beneficiary effects of legumes consumption like reduction of proinflammatory biomarkers have been reported previously.[2] Several cross-sectional and prospective studies have also indicated the negative association of legume consumption with obesity[3] and cardiovascular diseases.[4] Besides the beneficial effects of non-soy legumes, large body of documents are available regarding the effects of soy consumption on controlling and preventing cardiometabolic risks; improving features of the metabolic syndrome following a short-term period of soy consumption,[5,6] weight reducing effect of soy intake,[7] and favorable effects for type II diabetes[8,9] are some aspects of these beneficial effects.

It has been confirmed by several investigations that chronic non-communicable conditions such as insulin resistance, diabetes, and cardiovascular disease have a close link to obesity.[10] Hence, obesity prevention and treatment could help health promotion.

In treatment aspect, a component of dietary approaches to stop hypertension (DASH) pattern is suggested which is beneficial for several metabolic conditions.[12] So, including legumes among other healthy foods can be of great help in weight management.

Lifestyle modification is the best choice in preventive methods. As shown by Alizadeh et al,[1] legumes consumption can be considered as a component of healthy weight-reducing dietary pattern.[11] Furthermore useful components of legumes such as fiber, selenium and L-Argenin and its low glycemic index and low energy dense characteristics might prevent general and abdominal obesity and consequently obesity-related comorbidities.[3]

In one previous study, the minimum recommended L-Arginine supplement was 8.3 gr/d[13] while a recent study recommended typical dietary exposures for both selenium and L-Arginine as 200 µg/d and 5 gr/d, respectively. This dosage was suggested based on the side effects and also weak compliance.[14]

Legumes, as a good source of L-Arginine and selenium, could improve the weight reducing effect of hypocaloric diet.[14] Alizadeh et al[1] had not reported any significant effect of these dosages of L-Arginine and selenium on anthropometric measurements during 6 weeks. It has been suggested that low glycemic index feature of legumes would decrease insulin secretion[3] and ultimately prevents fat accumulation in abdomen. Moreover, L-Arginine, the precursor of nitric oxide (NO) which stimulates glucose and fatty acid oxidation,[15] and also selenium as an antioxidant mineral,[16] exist in high amounts in legumes. Thus, legumes might lead to more beneficiary effect of hypocaloric diet on anthropometric measures and consequently obesity-related comorbidities via different mechanisms. However, more longitudinal studies with different doses are needed.

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Conflict of Interests

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