Kyrgyz State Medical Academy after I.K.Akhunbaev, Neurology Department with Clinical Genetics Course

The Knowledge of Population Of Kyrgyzstan About The Mediterranean Diet

As A Preventive Factor Against Stroke And Heart Diseases

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Background

Mediterranean diet (MD) is characterized by a high intake of vegetables, fruits, nuts, whole grains, olive oil, cereals. Healthy lifestyle consists of no smoking, regular physical exercises, no alcohol abusing, moderate consumption of red wine and intake of big amount of vegetables and olive oil. Rates of ischemic stroke (IS) in Kyrgyzstan are the highest among all CIS countries.

Methods

The total sample was 280 people: 180 patients underwent IS and 100 controls. Objects were interviewed according to our detailed questionnaire. We also used Google forms, NIHSS scale, Bartel scale and points of a healthy lifestyle

Aim

Tasks

We conducted a cross-sectional with nested case-control study to evaluate the style of nutrition and healthy profile of patients with IS in Kyrgyzstan.

1. To assess the relationship between the nature of nutrition and the relative risk of occurrence of ischemic stroke
2. Identify the relationship between the presence of obesity in patients and the risk of cerebrovascular disease after an ischemic stroke
3. Identify the reasons why patients do not follow a diet

Results

Age range was 42 to 86 years; median age was 60,16, 47% were women. According TOAST ischemic strokes there was a prevalence of large artery atherosclerosis (LAA) (56,9%), cardioembolic (14,9%) and lacunar (7,2%). In the group of IS we among LAA strokes we found significantly higher consumption of animal fats and carbohydrates (OR=2.8 (95% 3.1-4.6), low consumption of vegetables (p=000.1), fruits and water less than 2 l in daily intake. 25% of all patients combined consumption of animal fats and carbohydrates (34% of them consider this as traditional food preferences). 87,5% (p=0.001) do not consume olives and olive oil, and 56,3% of patients answered that it's too expensive. 85,7% of patients do not lead a healthy lifestyle, are physically inactive (OR 4.1 (95% 2.1-11.1), 40,6% were smokers in LAA group. Only 6.3% of all IS had enough time for everyday 20 min workout. BMI in all TOAST subtypes was not significantly different and was 25 (p=0.01), but lower in

Relative risk and 95% confidence intervals to atherothrombotic, cardioembolic and lacunar stroke by BMI categories

	BMI <23	BMI 23-24,9	BMI 25-26,9	BMI 27-29,9	BMI >30	p
Atherothrombotic	0,034 (0,19-5,634)	0,989 (0,111-8,805)	1,911 (0,343-8,638)	1,209 (1,109-1,320)	2,333 (0,243-4,314)	<0.01
Cardioembolic	-	2,571 (0,454-2,560)	1,011 (0,343-7,638)	0,83 (0,096-5,544)	1,333 (0,241-7,314)	<0.01
Lacunar	0,505 (0,15-1,896)	0,762 (0,157-3,702)	0,971 (0,251-3,755)	1,129 (0,289-4,413)	2,018 (0,616-2,128)	<0.01

Age adjusted baseline characteristics of the study participants according to their BMI status

Variable	BMI<25	BMI=25-29,9	BMI>30
Age	38 ±9,8	55,19±14,5	57±7,3
Systolic blood pressure	123,44 ±12,07	131,29±15,6	137±11,8
Diastolic blood pressure	81,98±6,3	84,68±6,9	90,1±7,9
Hypertension	25%	43,8%	60,7%
Never smoked	70,8%	40,6%	71,4%
Smoking (past)	2,1%	3,1%	25%
Smoking (current)	22,9%	57,3%	3,6%
Exercise ≥1/wk	62,5%	13,6%	3,6%
Consumption of alcohol (>1 dose a day)	0%	12,5%	1,5%
Consumption of alcohol (2-6 doses a week)	6,3%	6,3%	17,9%
Consumption of alcohol (<1 dose a week)	27%	34,4%	46,4%
Diabetes mellitus	4,2%	8,5%	10,7%
Coronary heart disease	12,5%	11,7%	53,6%
High level of total cholesterol	8,3%	12,7%	25%

Which food is prevalent in stroke patients?

Obesity in patients with stroke

Do patients with stroke consume a lot of animal fats?

Do patients with stroke consume fish?

Do patients with ischemic stroke consume olive oil and olives?

Relationship between waist, thigh size, healthy lifestyle points and weight category

P<0.01

Implementation of Mediterranean Diet in stroke departments

Do patients with stroke adhere MD?

Indicators	Stroke	Healthy people
The consumption of olives and olive oil	4,1%	24,2%
The consumption of a sufficient amount of liquid (water)	8,2%	55,5%
Moderate consumption of red wine	2,0%	4,5%
Consuming lots of vegetables	3,9%	46,9%
Fish consumption	14,3%	31,8%

Conclusion

Because of traditional food intake preferences (high consumption of animal fat and carbohydrates), Kyrgyz people tend to be overweight, higher BMI and do not adhere MD. We need to educate Kyrgyz inhabitants to change food preferences in order to change rates for IS in population.

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