Comparison of the nutritional state of elderly dialysis patients living in a nursing home and elderly dialysis outpatient

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Purpose

In recent years, the number of elderly patients on long-term dialysis has increased, resulting in a higher incidence of malnutrition in these patients. We examined the nutritional state and living environment of dialysis patients aged 70 years or older and discussed ideal care for such patients in the future.

Methods

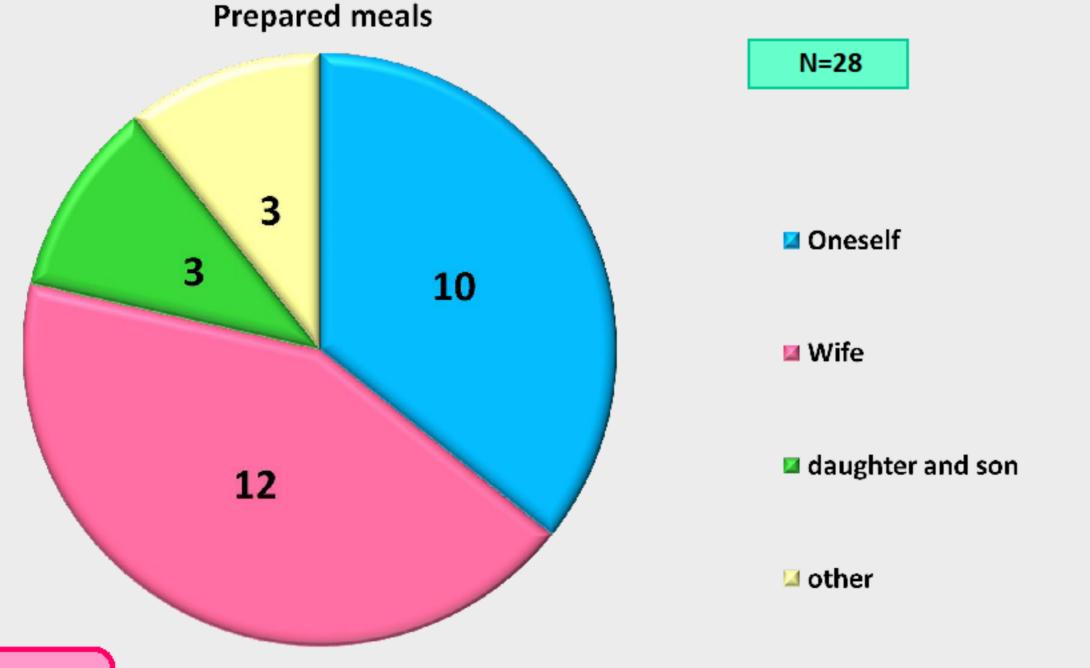
Out of 98 elderly dialysis patients aged 70 years or older, the subjects were 23 patients living in our nursing home (group N) (mean age: 79.2 ± 6.0 years, mean dialysis vintage: 6.7 ± 5.1 years) and 28 outpatients commuting to our hospital (group O) (mean age: 76.3 ± 5.0 years, mean dialysis vintage: 7.1 ± 4.9 years) for whom current nutritional intake could be compared with that of 3 years prior. We examined and compared their nutritional state indices (serum Alb, ChE, n-PCR, BMI) in November 2011 and November 2014. We also researched who was mainly responsible for preparing food and backgrounds of outpatients.

Results

Comparison of the admitted group from 2011 to 2014 showed significant differences for changes in serrum Alb (3.4 \pm 0.3 to 3.2 \pm 0.4 g/dl), ChE (211.0 \pm 56.2 to 191.0 \pm 57.1 IU/I/37° C), and n-PCR (0.9 \pm 0.1 to 0.8 \pm 0.2 g/Kg/day). BMI went from 21.9 \pm 4.0 to 21.7 \pm 3.9 Kg/m², indicating no significant difference. Meals for the admitted group were prepared and provided by a nutritionist and a chef. The number of independent admitted patients dropped from 10 cases (43.5%) in 2011 to 6 cases (26.0%) in 2014 and the number of patients requiring nursing care increased from 13 to 17. Meanwhile, in the commuting group, Alb was 3.6 \pm 0.3 in 2011 and 3.6 \pm 0.3 g/dl in 2014, n-PCR was 0.8 \pm 0.2 in 2011 and 0.8 \pm 0.2 g/Kg/day in 2014, and BMI went from 21.3 \pm 3.4 to 20.7 \pm 3.6 Kg/m², indicating no significant changes in the 3 years. In the commuting group, 35.7% of patients lived with family, 39.3% lived with a spouse, and 25% lived alone. Most meals were prepared by the patient themselves or family members.

Results 2

	Group	November 2011	November 2014
independent	N	10	6
	0	24	21
Requiring nursing care	N	13	17
	0	4	7

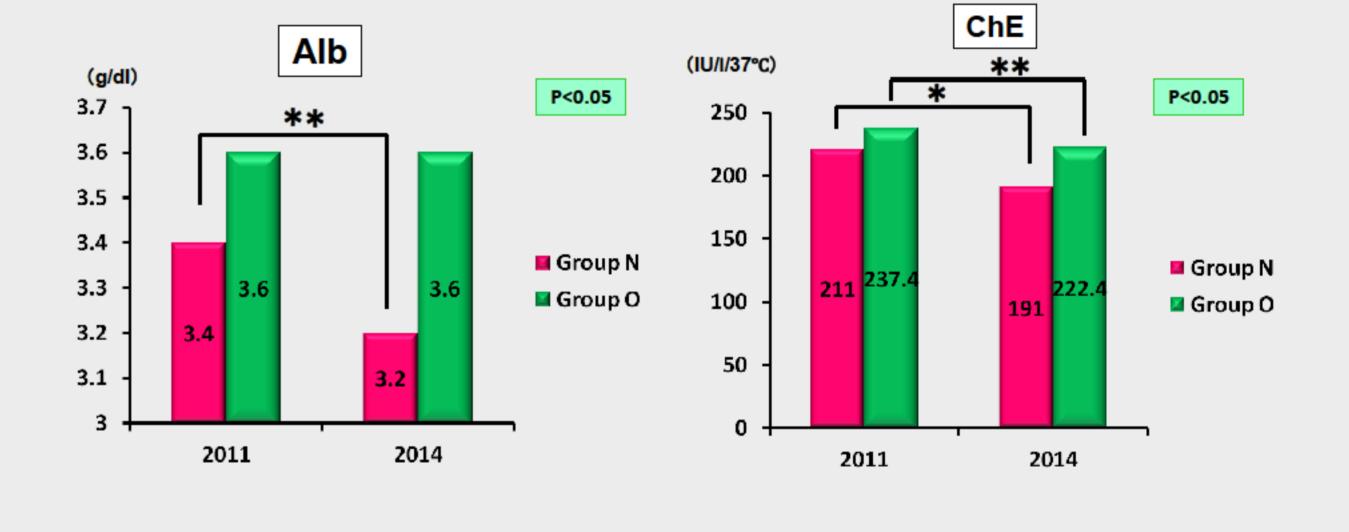


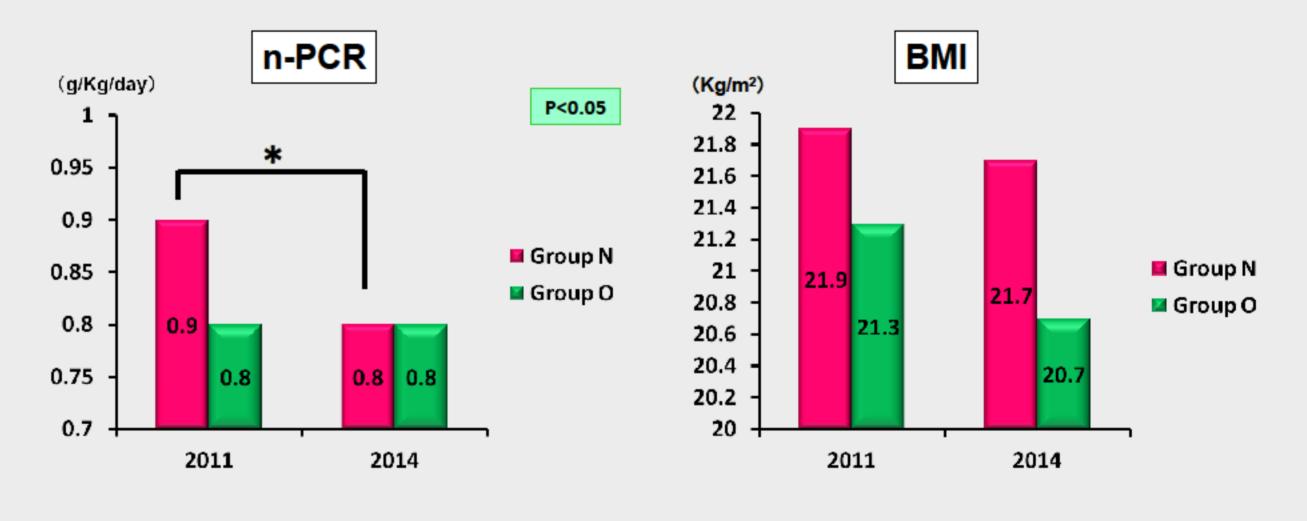
Subjects

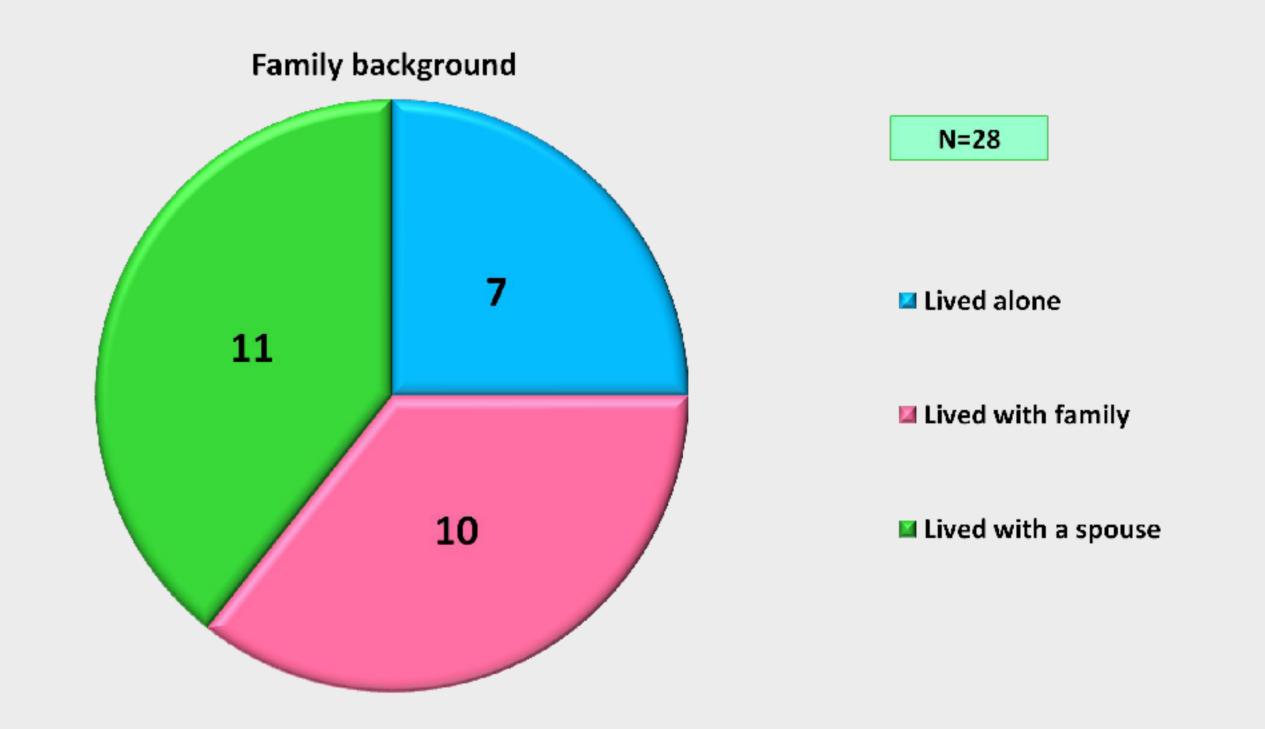
	Group N	Group I
Patiant numbers	23	28
Mean age (years)	79.2±6.0	76.3±5.0
HD Vintage (years)	6.7±5.1	7.1±4.9

Results 1

	Group	November 2011	November 2014		
Alb	N	3.4±0.3	3.2±0.4**		
	0	3.6±0.3	3.6±0.3		
ChE	N	211.0±56.2	191.0±57.1*		
	0	237.4±50.9	222.4士45.**		
n-PCR	N	0.9±0.1	0.8±0.2*		
	0	0.8±0.2	0.8±02		
BMI	N	21.9±4.0	21.7±3.9		
	О	21.3±3.4	20.7±3.6		







Conclusion

Seventy-five percent of the outpatients lived with family members and the ingested meals were prepared by the patient or family members. Outpatients were continuing exercise and independence in order to maintain commuting status and were also able to maintain the nutritional state for 3 years. In contrast, dialysis patients living in our nursing home showed significant decreases in nutritional state, which demonstrates the importance of providing care that actively promotes exercise and independence as well enhancing measures to improve nutrition in such patients.

