

EVALUATION OF NUTRITIONAL STATUS IN ELDERLY HD PATIENTS: IMPACT OF THE DEGREE OF AUTONOMY AND ALIMENTARY HABITS

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INTRODUCTION

Malnutrition is a well-known mortality risk factor in dialysis patients, especially in the elderly. Periodical evaluation of nutritional status is thus of importance in this kind of patients.

Nurses have a key role in identifying patients' needs, knowing their nutritional habits and educating them in healthy lifestyles.

OBJECTIVES

To evaluate how food habits and the degree of autonomy influence the nutritional status in elderly haemodialysis patients.

Table 1. Patient characteristic according to muscular brachial area distribution

Variable	Normal or mild decrease N = 48	Moderate-severe decrease N = 28	P value
Age (years)	75.43 ± 6.30	78.52 ± 6.54	0.046
Gender (male n,%)	26 (54.2%)	21 (75%)	0.058
Diabetes (YES n,%)	16 (33.3%)	11 (39.3%)	NS
Dialysis time (hours)	3.97 ± 0.22	3.74 ± 0.79	0.054
Δ weight during HD (kg)	2.71 ± 2.88	1.71 ± 0.99	0.081
Follow up in HD (months)	76.44 ± 81.49	78.91 ± 94.82	NS
Serum albumin (g/dl)	3.50 ± 0.43	3.39 ± 0.51	NS
CRP (mg/dl)	2.26 ± 2.78	2.41 ± 4.23	NS
PTH (pg/ml)	470.12 ± 464.45	330.67 ± 226.25	NS
KT/V	1.36 ± 0.31	1.44 ± 0.20	NS
LTI (kg/m ²)	13.02 ± 2.79	12.02 ± 2.48	NS
BMI (kg/m ²)	27.53 ± 4.65	21.65 ± 2.85	<0.0001
Muscular brachial area (cm ²)	55.27 ± 11.00	37.52 ± 6.76	<0.0001

Table 2. Patient characteristic according to fat body mass distribution

Variable	Normal or mild decrease N = 39	Moderate-severe decrease N = 37	P value
Age (years)	75.16 ± 5.58	78.06 ± 7.17	0.053
Gender (male n,%)	26 (66.7%)	21 (56.8%)	NS
Diabetes (YES n,%)	17 (43.6%)	10 (27%)	NS
Dialysis time (hours)	3.88 ± 0.68	3.89 ± 0.27	NS
Δ weight during HD (kg)	2.71 ± 3.23	1.95 ± 0.83	NS
Follow up in HD (months)	76.02 ± 77.18	78.75 ± 94.53	NS
Serum albumin (g/dl)	3.54 ± 0.37	3.38 ± 0.53	NS
CRP (mg/dl)	1.78 ± 2.31	2.92 ± 4.13	NS
PTH (pg/ml)	481.84 ± 484.17	353.81 ± 274.19	NS
KT/V	1.34 ± 0.27	1.43 ± 0.29	NS
FTI (kg/m ²)	14.44 ± 5.57	8.67 ± 3.31	<0.0001
BMI (kg/m ²)	27.55 ± 4.67	21.70 ± 2.94	<0.0001
Fat brachial area (cm ²)	25.66 ± 13.15	8.28 ± 4.76	<0.0001

CONCLUSIONS

An important percentage of elderly HD patients shows a significant decrease in either LBM or FBM. The decrease in FBM seems to happen earlier than LBM reduction and it is less influenced by the degree of autonomy of the patients. Patient's awareness of his/her nutritional status is poor.

This study seems to suggest that HD nurses play an important role in recognizing malnutrition risk factors and could help to encourage changes in lifestyle around nutrition habits.

METHODS

76 prevalent HD patients older than 65 years (M/F 47/29, mean age 76.58 ± 6.52 years, 1/3 ≥ 80 years) underwent nutritional evaluation with anthropometric parameters and plicometry. All the patients were asked to fill the "Multidimensional Prognostic Index" (MPI) questionnaire, a new prognostic index for the elderly.

RESULTS

At anthropometric measurement an important percentage of patients had significant reduction in both lean and fat body mass (Figure 1 and 2). Patients characteristics according to the distribution of muscular and fat brachial area are summarised in Table 1 and 2.

Table 3 and 4 summarise the answer at MPI questionnaire according to the distribution of muscular and fat brachial area.

In particular, the patients with moderate-severe decrease in LBM (Lean Body Mass) were less independent in walking or bedridden, more likely to depend on someone else in preparing meals and in eating compared to the well-nourished patients. Moreover, they were more likely to have only two meals per day, have had more frequently weight loss and loss of appetite in the 3 previous months.

Compared to well-nourished patients, those with moderate-severe decrease in FBM (Fat Body Mass) were less independent in eating without help and in food shopping and have had a weight loss in the 3 previous months. At self-evaluation, patient awareness of nutritional problems is low.

Figure 1. Frequency distribution of reduction in lean body mass

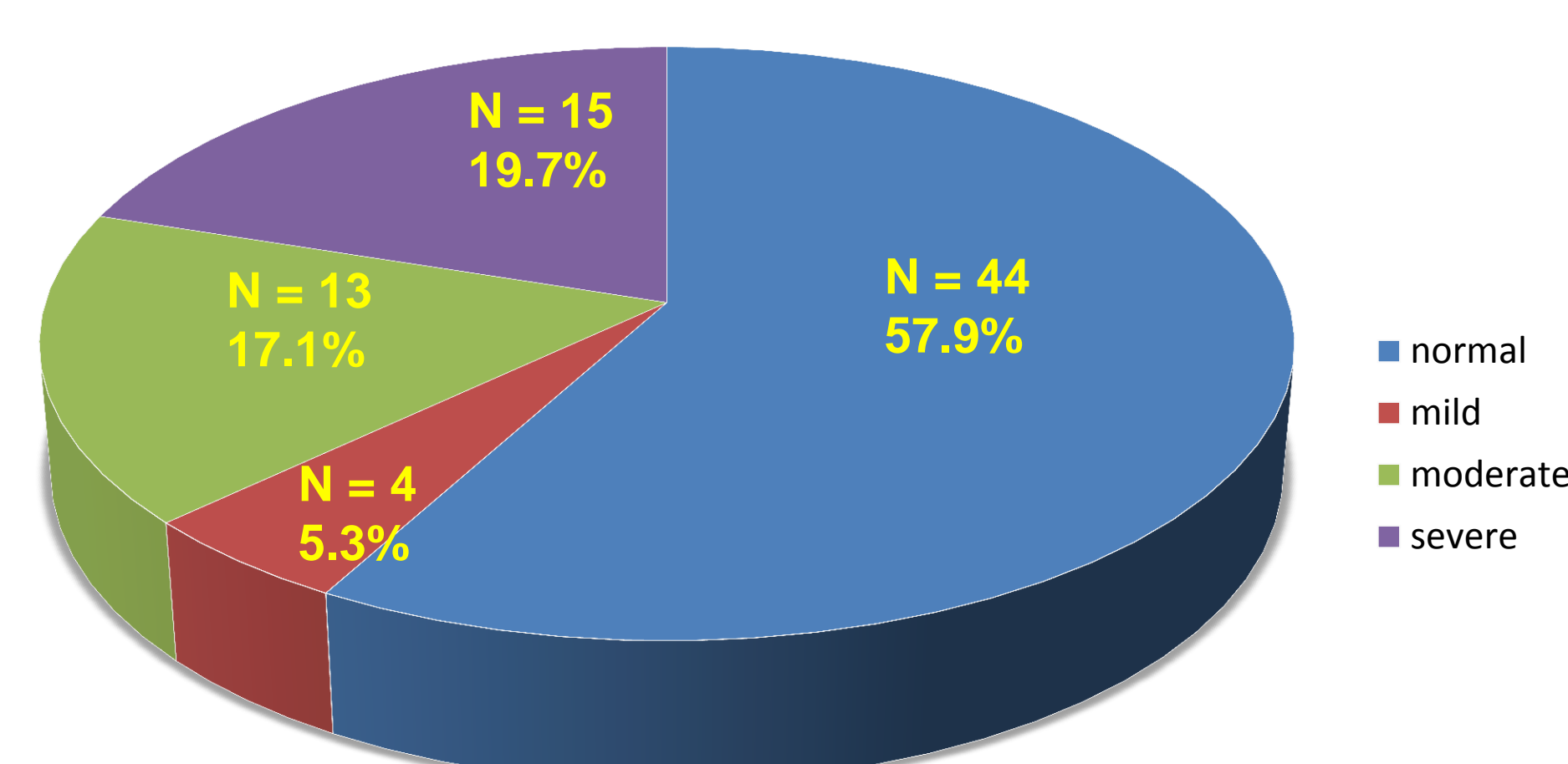
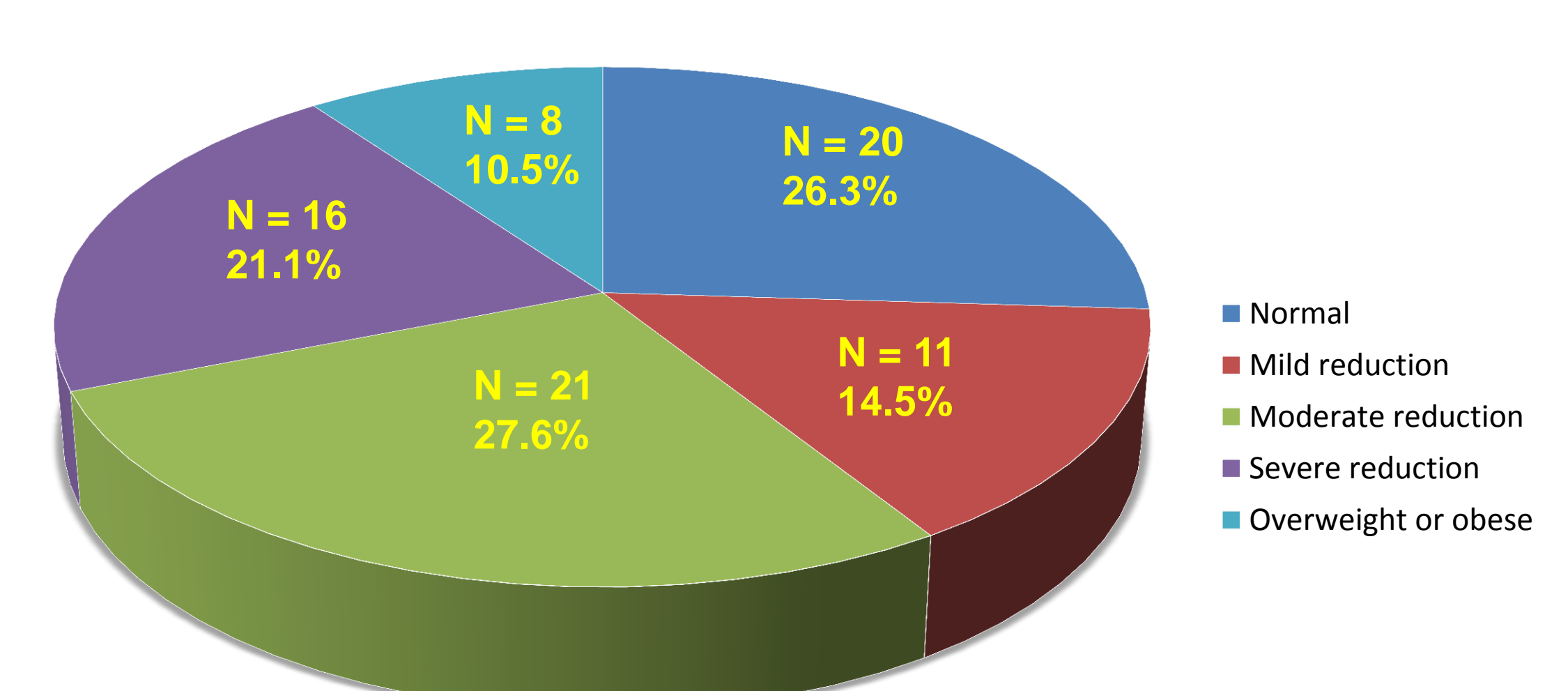


Figure 2. Frequency distribution of fat body mass



Variable	Normal or mild decrease N = 48	Moderate-severe decrease N = 28
Walking disability or bedridden (n,%)	21 (52%)	20 (71%)
Unable to prepare meals	10 (35%)	24 (48%)
Dependent on eating	2 (5%)	7 (29%)
Two meals per day	9 (21%)	9 (33%)
Weight loss in the previous 3 months	7 (17%)	11 (39%)
Loss of appetite in the previous 3 months	18 (42%)	16 (57%)

Table 3. Answers to MPI questionnaire according to muscular brachial area distribution

Variable	Normal or mild decrease N = 39	Moderate-severe decrease N = 37
Walking disability or bedridden (n,%)	7 (17%)	13 (35%)
Unable to prepare meals	14 (35%)	15 (40%)
Dependent on eating	2 (5%)	7 (18%)
Two meals per day	7 (17%)	8 (21%)
Weight loss in the previous 3 months	4 (10%)	5 (13%)
Loss of appetite in the previous 3 months	9 (23%)	18 (48%)
No food shopping	14 (35%)	15 (40%)

Table 4. Answers to MPI questionnaire according to fat body mass distribution

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