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PDF issue: 2026-11-18

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Izawa, P. Kazuhiro ; Watanabe, Satoshi ; Oka, Koichiro ; Mogamiya, Takuma ; Tada, Mika ; Nakata, Shuichi ; Nitobe, Sato ; Yoshizawa,…

(Citation)
Aging Clinical and Experimental Research,27(2):195-200

(Issue Date)
2015-04

(Resource Type)
journal article

(Version)
Accepted Manuscript

(Rights)
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(URL)
https://hdl.handle.net/20.500.14094/0100494089

AGING CLINICAL AND EXPERIMENTAL RESEARCH

ORIGINAL ARTICLE

Differences in physical performance based on the Geriatric Nutritional Risk Index in elderly female cardiac patients

Kazuhiro P. Izawa, PT, PhD, MSc[1,2]; Satoshi Watanabe, PT, BSc[2]; Koichiro Oka, PhD[3]; Takuma Mogamiya, PT, BSc[2] Mika Tada, PT, MSc[2], Shuichi Nakata, PT, BSc[2], Sato Nitobe, PT, MSc[2], Kazuya Yoshizawa, PT, BSc[2], Yasuyuki Hirano, PT, MSc[4], Naohiko Osada, MD, PhD[5], Kazuto Omiya, MD, PhD[6], Hiroyuki Shimizu, MD, PhD[7]

[1]Graduate School of Health Sciences, Kobe University, Kobe, Japan

[2]Department of Rehabilitation Medicine, St. Marianna University School of Medicine Hospital, Kanagawa, Japan

[3]Faculty of Sport Sciences, Waseda University, Saitama, Japan

[4]Department of Physical Therapy, Tokushima Bunri University, Tokushima, Japan

[5]Division of Cardiology, St. Marianna University Toyoko Hospital, Kawasaki, Japan

[6]Division of Cardiology, St. Marianna University Yokohama-city Seibu Hospital, Yokohama, Japan

[7]Department of Orthopedic Surgery, St. Marianna University School of Medicine, Kanagawa, Japan

Work was performed in the Department of Rehabilitation Medicine, St. Marianna University School of Medicine Hospital, Kanagawa, Japan.

Corresponding author: Kazuhiro P. Izawa, PT, PhD, MSc

Graduate School of Health Sciences, Kobe University, 10-2 Tomogaoka 7-chome Suma, Kobe 654-0142, Japan

TEL: +81-78-796-4566

E-mail: izawapk@ga2.so-net.ne.jp

Abstract

Background and Aims: Little is known about differences in the risk of poor nutritional status as assessed by the Geriatric Nutritional Risk Index (GNRI) in relation to physical performance and hospital stay in elderly female cardiac inpatients. The present study aimed to determine both differences in physical performance based on the GNRI and physical performance cut-off values according to the GNRI in elderly female cardiac inpatients.

Methods: We enrolled 105 consecutive female Japanese inpatients aged ≥65 years (mean age, 74.6 years) with cardiac disease in this cross-sectional study. We divided the patients into two groups according to GNRI: high-GNRI group (≥92 points) (n=71) and low-GNRI group (<92 points) (n=34). Handgrip strength (HG), knee extensor muscle strength (KEMS), gait speed (GS), and one-leg standing time (OLST) were assessed as indices of hospital physical performance and compared between the two groups to determine cutoff values of physical performance.

Results: After adjustment for age and left ventricular ejection fraction, HG, KEMS, GS, and OLST were significantly lower in the low-GNRI versus high-GNRI group. Cut-off values by ROC curve analysis were 16.2 kgf (AUC=0.66; p<0.001) for HG, 34.3% of body weight (AUC=0.62; p=0.04) for KEMS, 1.24 m/s (AUC=0.72; p<0.01) for GS, and 8.28 sec (AUC=0.62; p=0.04) for OLST.

Conclusion: The risk of poor nutrition, as indicated by a low GNRI, might be a predictor of lower physical performance. Cut-off values determined in this study might be minimum target goals for physical performance that can be attained by elderly female cardiac inpatients.

Keywords Physical performance, Geriatric Nutritional Risk Index, Elderly female cardiac inpatients

Introduction

Recently, the association between malnutrition and mortality in cardiac patients has been the focus of several studies, and the association between poor nutrition and elderly cardiac patients has also been discussed [1-4]. One tool for the assessment of nutritional risk, the Geriatric Nutritional Risk Index (GNRI), is well-established for evaluating nutritional status and malnutrition in elderly subjects [5-9]. Previous studies suggested that the GNRI can predict both functional dependency at hospital discharge and dependence in activities of daily living (ADL) and mortality in elderly resident care patients and heart failure inpatients. It has also been used as a tool to predict both mortality and functional status limitation in these patients [2, 5]. Poor physical performance (PP) as measured by muscle strength (MS), gait speed (GS), and one-leg standing time (OLST) is also associated with dependence in ADL, health-related quality of life, and mortality in frail elderly and/or cardiac patients [10, 11].

We previously reported a positive correlation between GNRI scores and PP after adjustment for age, and there were also differences in PP in relation to nutritional status assessed by GNRI in elderly male cardiac inpatients [12]. However, there are gender-related differences in factors relating to PP such as exercise capacity and upper and lower MS in cardiac patients [13]. Therefore, we believe that differences in GNRI status in relation to PP in elderly female cardiac inpatients also requires elucidation. We hypothesized that low GNRI status might be related to reduced PP in such patients.

Therefore, the purposes of the present study were to evaluate 1) differences in PP as related to the GNRI, and 2) to determine cut-off points for elderly female cardiac inpatients with low GNRI that could become minimum target goals for PP in these patients.

Methods

In this cross-sectional study, 188 consecutive female Japanese cardiac inpatients aged 65 to 92 years admitted to our hospital from June 2006 to November 2012 for myocardial infarction, coronary artery bypass grafting, valve replacement, or heart failure were selected for evaluation of PP. Patients with cardiac disease were included, but those with neurological, peripheral vascular, orthopedic, pulmonary, and advanced renal disease, and those on dialysis were excluded.

Patient characteristics were evaluated by review of medical records and included age, body mass index (BMI), left ventricular ejection fraction (LVEF), incidence of diabetes mellitus, etiology, and medications. Serum albumin level for calculation of GNRI, and cholesterol levels were obtained from the medical records. Serum albumin and cholesterol levels were measured using standard assays. We evaluated these characteristics at patient discharge from hospital. A cardiologist assessed LVEF as the index of cardiac function by echocardiography.

Geriatric Nutritional Risk Index (GNRI)

The GNRI was calculated using serum albumin level and BMI (body weight [BW, kg] / height $[m]^2$) during hospitalization [2, 12, 14, 15]. We calculated GNRI as follows: GNRI = 14.89 × serum albumin (g/dl) + 41.7 × BMI / 22. After that we defined GNRI levels based on previous reports as follows: a low GNRI (< 92 points) indicated moderate or severe nutritional risk, and a high GNRI (≥ 92 points) indicated low or no nutritional risk [2, 7, 12]. We determined this index value at patient discharge from hospital.

Physical performance (PP)

We assessed handgrip strength (HG), knee extensor MS (KEMS), GS, and OLST with eyes

106 opened as measures of PP [12]. These values were all measured at patient discharge from
107 hospital.
108
109 Handgrip strength (HG)
110 We measured HG using a standard adjustable-handle JAMAR dynamometer (Bissell
111 Healthcare Co., Grand Rapids, MI) set at the second grip position [12, 13]. Three
112 measurements of HG were made on each hand, and we paid attention to a possible Valsalva
113 effect during testing. We calculated HG using the formula from previous studies [12, 13] as
114 follows: highest value of the right-side HG + left-side HG (kgf [kilograms-force]) / 2.
115
116 Knee extensor muscle strength (KEMS)
117 We measured KEMS using a hand-held dynamometer (μTas MT-1, ANIMA, Tokyo, Japan).
118 All patients sat on a bench, and the dynamometer was fixed to a rigid bar. Testing was
119 performed for both legs at a maximum of three times maximal isometric voluntary contraction
120 of the knee extensor muscles and at a knee flexor angle of approximately 80-90° and hip joint
121 angle set at approximately 80-90° of flexion [12]. Attention was paid to a possible Valsalva
122 effect. We calculated KEMS as %BW using the formula from previous studies [12, 16] as
123 follows: highest value of the right-side KEMS + plus left-side KEMS (kgf) / 2 / BW (kg) *
124 100.
125
126 Gait speed (GS)
127 We assessed GS with the 10-m gait test, which was performed on flat ground along a 10-m
128 line at a gym. We asked each patient to walk as fast as possible on the 10-m line [17]. A
129 physiotherapist used a stopwatch to measure the time required for patients to walk from the
130 beginning to the end of the line. Three trials were performed. Afterwards, we calculated GS as

10 m / X sec, with the highest value measured considered the GS (m/sec) based on a previous study [17].

One-leg standing time (OLST)

We measured the OLST by timing the patient from the moment she raised her leg until she set it back down on the floor up to a maximum of 60 sec [17]. Each measurement consisted of three trials, and we used the longest time of the three measurements. We calculated the average OLST (sec) as follows: highest value of the right-side + left-side times as.

Statistical analysis

Results are expressed as mean ± standard deviation (SD). One-way analysis of covariance, *t*, and, $\chi 2$ tests were used to test for differences between the two groups in clinical characteristics and PP values. Adjustment for any significant differences in the clinical characteristics such as those of age and LVEF was made to calculate the PP values. Receiver-operating characteristic (ROC) curves were constructed by plotting true-positive rates (sensitivity) against false-positive rates (1-specificity) to determine the best cut-off value for differences in PP values between the groups. The area under the curve (AUC) and 95% confidence interval (CI) were also calculated. AUC values of > 0.9 indicate high accuracy, 0.7-0.9 indicate moderate accuracy, and 0.5-< 0.7 indicate low accuracy [18]. After we calculated these values with ROC curves, cut-off values for PP in relation to GNRI were chosen. A p value of < 0.05 was considered to indicate statistical significance. Statistical analyses were performed with IBM SPSS 17.0 J statistical software (IBM SPSS Japan, Inc., Tokyo, Japan).

Ethics

The present study was approved by the St. Marianna University School of Medicine Institutional Committee on Human Research. Informed consent was obtained from each patient.

158

159 **Results**

160

161 Of the 188 potential subjects, 130 met the inclusion criteria. We excluded 25 of these 130
162 patients because of insufficient data to evaluate clinical characteristics, serum albumin level,
163 and/or PP values. Thus, 105 patients were included for analysis on the basis of the inclusion
164 criteria.

165

166 Differences in patient characteristics

167 These 105 patients were divided into two groups by GNRI: high GNRI (≥ 92 points) (n = 71)
168 and low GNRI (< 92 points) group (n = 34). Except for age, BMI, LVEF, and serum albumin
169 level, patient characteristics were similar between the two groups (Table 1).

170

171 Differences in physical performance (PP) between groups

172 After adjustment for age and LVEF, values of all PP measures except for those of BMI and
173 serum albumin were found to be significantly lower in the low-GNRI group than in the high-
174 GNRI group (Table 2).

175

176 Cut-off values for physical performance (PP)

177 Details of the cut-off values for PP found by ROC curve analysis are shown in Table 3. The
178 cut-off values were 16.2 kgf for HG, 34.3%BW for KEMS, 1.24 m/s for GS, and 8.28 sec for
179 OLST, respectively.

180

181 **Discussion**

182 HG and KEMS, GS, and OLST as indices of PP in female Japanese cardiac inpatients were
183 evaluated in relation to the GNRI in this study. Because BMI and serum albumin are required

for calculation of the GNRI [2, 15], we adjusted for age and LVEF when assessing differences in PP based on GNRI. After adjustment for these factors, significant differences were present in PP measures in relation to GNRI, indicating that a low GNRI, an index of nutrition-related risk, might reflect reduced PP in elderly female cardiac inpatients.

Nutritional status is important in relation to functional status as assessed by MS and ADL in elderly institutionalized and cardiac patients [2, 5, 8, 9, 12]. Cereda et al. [5] suggested that high nutritional risk (GNRI <92) was an independent predictor of functional status and mortality in 346 elderly long-term care residents. Kinugasa et al. [2] evaluated ADL assessed by the Barthel index in relation to functional capacity in heart failure inpatients and found that a low nutritional level was associated with decreased ADL following discharge from the hospital. We previously suggested that in 251 male inpatients aged over 65 years (mean age 74.7 years), the risk of poor nutrition, as shown by a low GNRI, could be a useful predictor of PP [12]. The PP of cardiac inpatients at risk of poor nutrition, as indicated by a low GNRI, was also found in the elderly women in the present study.

The cut-off value of 16.2 kgf for HG in the present study was similar to that of previous findings. Kim et al. [19] reported that the observed threshold for discriminating between mobility disability and ADL disability groups by HG was 16.3 kg in 306 community-dwelling women aged 75 years or older (range, 75-99 years). The value from our study was approximately 15-26% lower than values reported in elderly Japanese women of various ages: (65-69 years, 22.0 kgf; 70-74 years, 19.2 kgf; and 75-79 years, 18.7 kgf) [20].

The cut-off value for KEMS was 34.3%BW and was approximately 12-32% lower than values of older Japanese men in the community (60-69 years, 50.2%BW, 70-79 years, 45.9%BW, and 80-89 years 38.6%BW) [16, 21]. Regarding the relation between movement independence of ADL and KEMS, a threshold value of disability level on standing from a sitting position in a chair (40 cm from the floor) was equivalent to a KEMS of 35.0%BW in

205 older patients (76.7 years). This cut-off value was very close to that found in the present study (34.3%BW) [16]. Poor nutritional status may reduce KEMS and may also result in low ability to perform ADL in elderly female cardiac inpatients.

In terms of GS, the cut-off value was 1.24 m/s, which was approximately 10-24% lower than values reported for elderly women in the community (65-69 years, 1.64; 70-74 years, 1.36; and 75-79 years, 1.38 m/s) [20]. Previous research has shown GS to be a good predictor for ADL and mortality in older adults [22], and a GS of at least 1.0 m/s was reported to be required to safely cross the street [16, 23]. The cut-off value in the present study was higher than those reported in these previous studies. However, another study [17] suggested that the cut-off value for GS in elderly women (mean age, 74.1 years.) at high risk of requiring nursing care because of problems with locomotion was equal to 1.61 m/s (10 m/6.2 s). Our cut-off value of 1.24 m/s was lower, and this value might be useful both as a threshold to indicate poor nutritional status and possibly to predict problems with locomotion in older cardiac female inpatients.

OLST has a proven association with an individual's ADL [17, 24]. In the present study, the threshold of OLST was 8.2 sec, a value approximately 43-71% lower than that of previous studies [17, 20]. One of these previous studies [17] reported a cut-off value for OLST of 15 sec for middle-aged and elderly women (aged 60-88 years) at high risk of requiring nursing care because of problems with locomotion. The other study [20] also reported that in older female community-dwelling adults, OLSTs with eyes open were as follows: 65-69 years, 28.0 sec; 70-74 years, 17.3 sec; and 75-79 years, 14.2 sec.

Study limitations

Limitations in the present study include its small sample size. All AUC values except that for GS were within 0.7, indicating low accuracy [17]. We did not investigate the effects of renal dysfunction, anemia, or smoking on GNRI and PP. In addition, our findings should be

interpreted cautiously because the GNRI takes into account other nutritional status-related complications, such as inflammation, infection, and other comorbidities, and might also be affected by patient hydration status. Therefore, future studies are required to investigate these questions.

Conclusion

The overall PP of elderly female cardiac inpatients at risk of poor nutrition, as indicated by a low GNRI, may be negatively affected, and a low GNRI may be a useful predictor of poor PP. The cut-off values reported here might be minimum target goals for PP that can be attained by elderly female cardiac inpatients.

Conflict of interest All authors declare no conflicts of interest in relation to the work reported in this manuscript.

References

1. Tsuchihashi-Makaya M, Kinugawa S (2013) Nutrition as a new treatment target in chronic heart failure. Circ J 77:604–605.
2. Kinugasa Y, Kato M, Sugihara S, Hirai M, Yamada K, Yanagihara K, Yamamoto K (2013) Geriatric nutritional risk index predicts functional dependency and mortality in patients with heart failure with preserved ejection fraction. Circ J 77:705–711.
3. Matos AC, Souza GG, Moreira V, Ramalho A (2012) Effect of vitamin A supplementation on clinical evolution in patients undergoing coronary artery bypass grafting, according to serum levels of zinc. Nutr Hosp 27:1981–1986.
4. Lomivorotov VV, Efremov SM, Boboshko VA, Nikolaev DA, Vedernikov PE, Lomivorotov VN, Karaskov AM (2013) Evaluation of nutritional screening tools for patients scheduled for cardiac surgery. Nutrition 29:436–442.
5. Cereda E, Pedrolli C, Zagami A, Vanotti A, Piffer S, Faliva M, Rondanelli M, Caccialanza R (2013) Nutritional risk, functional status and mortality in newly institutionalised elderly. Br J Nutr 110:1903–1909.
6. Chan M, Kelly J, Batterham M, Tapsell L (2012) Malnutrition (subjective global assessment) scores and serum albumin levels, but not body mass index values, at initiation of dialysis are independent predictors of mortality: a 10-year clinical cohort study. J Ren Nutr 22:547–557.
7. Bouillanne O, Morineau G, Dupont C, Coulombel I, Vincent JP, Nicolis I, Benazeth S, Cynober L, Aussel C (2005) Geriatric Nutritional Risk Index: a new index for evaluating at-risk elderly medical patients. Am J Clin Nutr 82:777–783.
8. Cereda E, Limonta D, Pusani C, Vanotti A (2006) Geriatric nutritional risk index: a possible indicator of short-term mortality in acutely hospitalized older people. J Am Geriatr Soc 54:1011–1012.

9. Cereda E, Vanotti A (2007) The new Geriatric Nutritional Risk Index is a good predictor of muscle dysfunction in institutionalized older patients. Clin Nutr 26:78–83.
10. Purser JL, Weinberger M, Cohen HJ, Pieper CF, Morey MC, Li T, Williams GR, Lapuerta P (2005) Walking speed predicts health status and hospital costs for frail elderly male veterans. J Rehabil Res Dev 42:535–546.
11. Purser JL, Kuchibhatla MN, Fillenbaum GG, Harding T, Peterson ED, Alexander KP (2006) Identifying frailty in hospitalized older adults with significant coronary artery disease. J Am Geriatr Soc 54:1674–1681.
12. Izawa KP, Watanabe S, Oka K. (2014) Relation of thresholds of physical performance to nutritional status in older hospitalized male cardiac patients. Geriatr Gerontol Int (in press).
13. Izawa KP, Oka K, Watanabe S, Yokoyama H, Hiraki K, Morio Y, Kasahara Y, Omiya K (2008) Gender-related differences in clinical characteristics and physiological and psychosocial outcomes of Japanese patients at entry into phase II cardiac rehabilitation. J Rehabil Med 40:225–230.
14. Ochi A, Ishimura E, Tsujimoto Y, Kakiya R, Tabata T, Mori K, Tahara H, Shoji T, Yasuda H, Nishizawa Y, Inaba M (2012) Elemental concentrations in scalp hair, nutritional status and health-related quality of life in hemodialysis patients. Ther Apher Dial 16:127–133.
15. Yamada K, Furuya R, Takita T, Maruyama Y, Yamaguchi Y, Ohkawa S, Kumagai H (2008) Simplified nutritional screening tools for patients on maintenance hemodialysis. Am J Clin Nutr 87:106–113.
16. Omori Y, Yokoyama H, Aoki U et al (2004) Relationship between isometric knee extension strength and ability to rise from a chair in elderly patients. Rigaku Ryoho Gaku 31:106–112 (In Japanese with English abstract).
17. Muramoto A, Imagama S, Ito Z, Hirano K, Tauchi R, Ishiguro N, Hasegawa Y (2013)

Threshold values of physical performance tests for locomotive syndrome. J Orthop Sci 18:618–626.

18. Akobeng AK (2007) Understanding diagnostic tests 3: Receiver operating characteristic curves. Acta Paediatr 96:644–647.
19. Kim MJ, Yabushita N, Kim MK, Matsuo T, Okuno J, Tanaka K (2010) Alternative items for identifying hierarchical levels of physical disability by using physical performance tests in women aged 75 years and older. Geriatr Gerontol Int 10:302–310.
20. Furuna T, Nagasaki H, Nishizawa S, Okuzumi H (1998) Longitudinal change in the physical performance of older adults in the community. J Jpn Phys Ther Assoc 1:1–5.
21. Masuda T, Matsunaga A (2009) Theory and technique of cardiovascular physiotherapy, 1st ed. Medical View Co., Ltd., Tokyo, pp 165–172 (In Japanese)
22. Cesari M, Kritchevsky SB, Penninx BW, Nicklas BJ, Simonsick EM, Newman AB, Tylavsky FA, Brach JS, Satterfield S, Bauer DC, Visser M, Rubin SM, Harris TB, Pahor M (2005) Prognostic value of usual gait speed in well-functioning older people--results from the Health, Aging and Body Composition Study. J Am Geriatr Soc 53:1675–1680.
23. Takahashi S, Toriida M, Tayama H (1989) A study on the standard of gait evaluation-by an actual intervention of crosswalks. Rigaku Ryoho Gaku 16:261–266 (In Japanese with English abstract).
24. Islam MM, Nasu E, Rogers ME, Koizumi D, Rogers NL, Takeshima N (2004) Effects of combined sensory and muscular training on balance in Japanese older adults. Prev Med 39:1148–1155.

Table 1 Patient characteristics

Variable	High GNRI group	Low GNRI group	t & χ^2 Value	*P* Value
No. of patients	71	34		
Age (years)	73.5 ± 5.8	76.7 ± 6.1	2.53†	0.02
Body mass index (kg/m^2)	23.4 ± 3.0	19.9 ± 2.0	6.05†	<0.01
LVEF (%)	54.8 ± 13.2	46.7 ± 14.7	2.62†	0.01
Serum albumin (g/dl)	3.8 ± 0.2	3.3 ± 0.3	8.86†	<0.01
Incidence of diabetes mellitus (%)	32.3	36.6	0.18	0.82
Etiology of admission (n)				
Heart failure	20	11	2.14	0.34
CABG/VR	29	9	-	-
Myocardial infarction	22	14	-	-
Cholesterol levels				
HDL cholesterol (mg/dL)	41.9± 10.7	42.4± 11.2	0.12†	0.40
LDL cholesterol (mg/dL)	101.7± 29.1	92.2± 25.1	1.05†	0.90
Triglyceride (mg/dL)	137.1± 60.8	113.3± 41.9	1.53†	0.29
Medications (%)				
Beta blockers	63.3	70.5	0.51	0.30
ARB	32.3	17.6	2.51	0.08
ACE-I	43.7	61.7	3.01	0.09
Diuretic	66.1	58.8	0.54	0.51

Values are mean ± standard deviation unless otherwise noted.

GNRI Geriatric Nutritional Risk Index, *LVEF* left ventricular ejection fraction, *CABG* coronary artery bypass grafting, *VR* valve replacement, *HDL* high-density lipoprotein, *LDL* low-density lipoprotein, *ARB* angiotensin receptor blocker, *ACE-I* angiotensin converting enzyme inhibitor

†t value.

Table 2 Differences in physical performance between groups

Variable	High GNRI group	Low GNRI group	F value	*P* Value
Handgrip strength (kgf)*	18.12 ± 6.17	15.16 ± 6.12	3.31	0.02
Knee extensor muscle strength (%BW)*	38.47 ± 12.30	34.40 ± 11.77	4.23	0.01
Gait speed (m/sec)*	1.38 ± 0.35	1.16 ± 0.36	*8.23*	<0.001
OLS time (sec)*	17.40 ± 19.38	12.46 ± 18.38	6.38	<0.001

Values are mean ± standard deviation unless otherwise noted.

*After adjustment for age and LVEF.

GNRI Geriatric Nutritional Risk Index, *BW* body weight, *OLS* one-leg standing, *LVEF* left ventricular ejection fraction

Table 3 Cut-off values for physical performance

Variable	cut-off values	sensitivity	1-specificity	AUC	95% CI	*P* Value
Handgrip strength (kgf)	16.2	0.65	0.45	0.66	0.55-0.77	<0.001
Knee extensor muscle strength (%BW)	34.3	0.65	0.42	0.62	0.49-0.74	0.04
Gait speed (m/sec)	1.24	0.66	0.41	0.72	0.61-0.83	<0.001
OLS time (sec)	8.28	0.55	0.26	0.62	0.51-0.73	0.04

AUC area under the curve, *CI* confidence interval, *OLS* one-leg standing