

Prediction of Mortality and Postoperative Complications using the Hip-Multidimensional Frailty Score in Elderly Patients with Hip Fracture

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SUPPLEMENTARY TABLE 1-A. Adjusted HRs by Risk of Multidimensional Frailty

Model for 6-month and 1-year all-cause mortality Using Cox Regression

	Age adjusted HR (95% CI)	Fully Adjusted HR* (95% CI)
6-month mortality	5.428 (2.713 – 10.858) [†]	3.910 (1.798 – 8.505) [‡]
1-year mortality	3.589 (2.211 – 5.825) [†]	3.393 (1.929 – 5.968) [†]

*Adjusted by age, body mass index, white blood cell count, hemoglobin, cholesterol, protein, blood urea nitrogen, creatinine, and American Society of Anesthesiologists class.

[†] $P < 0.001$, [‡] $P = 0.001$.

CI indicates confidence interval; HR, hazard ratio

SUPPLEMENTARY TABLE 1-B. Comparison of Postoperative Complications, Institutionalization and Prolonged Hospital Stay according to Hip-MFS risk group.

	Low-risk Hip-MFS (Hip-MFS ≤ 8) (n=364)	High risk Hip-MFS (Hip-MFS > 8) (n=117)	P Values*
Postoperative complications [†]	122 (33.5%)	61 (52.1%)	< 0.001
Institutionalization*	204 (56.2%)	78 (69.6%)	0.011
Prolonged total hospital stay	70 (19.2%)	35 (29.9%)	0.015
Prolonged postoperative hospital stay	83 (22.8%)	40 (34.2%)	0.014

P value comparing high-risk Hip-MFS group and low-risk Hip-MFS group by χ^2 or Fisher's exact test.

*Data not included 6 patients because of in-hospital mortality..

SUPPLEMENTARY TABLE 2. Comparison of Baseline Demographic Characteristics between Participants and Non-participants of the study.

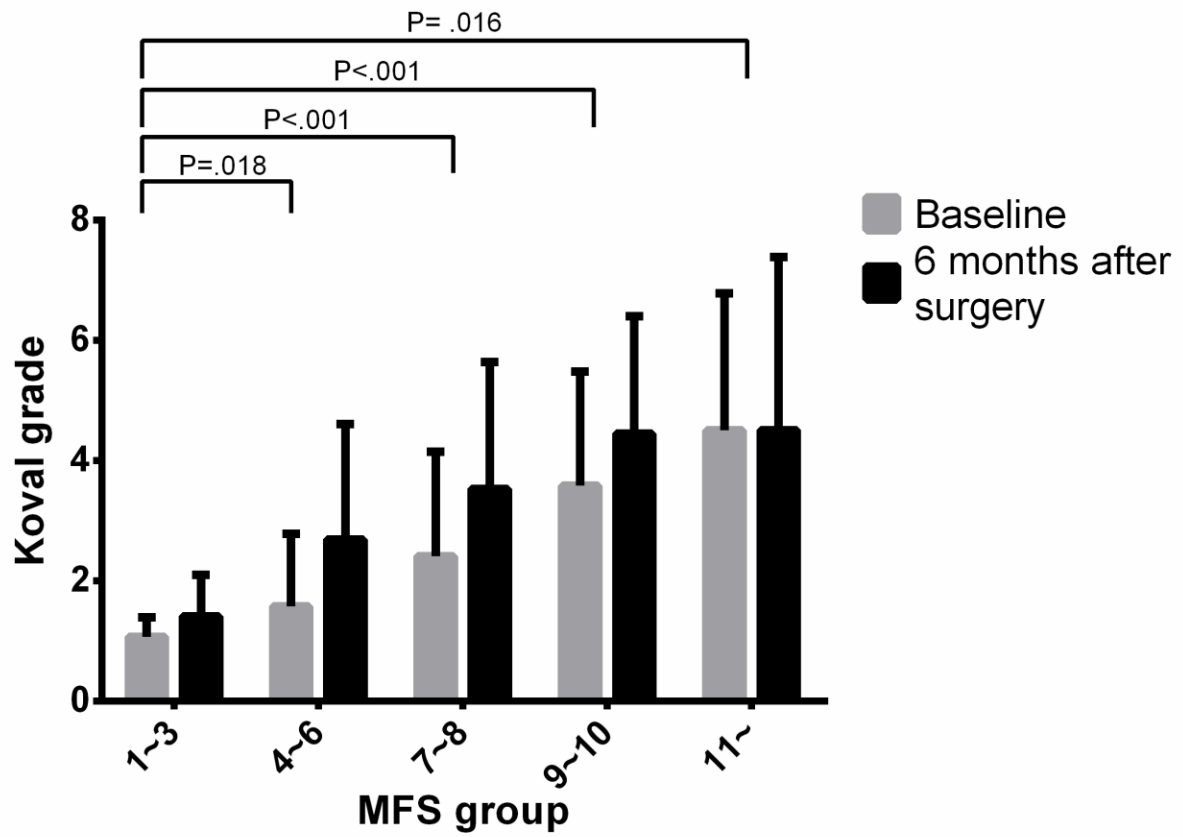
	Participants (n = 481)	Non-participants (n = 594)	P Values
Demographic			
Age (year)	80.5 (6.9)	80.3 (7.0)	0.620
Sex (male/female)	139/342	158/436	0.402
Weight (kg)	52.7 (10.5)	53.4 (11.1)	0.297
Body mass index (kg/m ²)	21.4 (3.6)	21.7 (3.9)	0.152
ASA class (1/2/3/4)*	29/288/147/4	32/355/182/7	0.918
Fracture site (intra/extra)	235/246	280/314	0.575
HTN	328 (68.2%)	386 (65.0%)	0.268
DM	163 (33.9%)	201 (33.8%)	0.986
History of MI	57 (11.9)	65 (10.9%)	0.641
Heart Failure	11 (2.3%)	21 (3.5%)	0.231
History of CVA	100 (20.8%)	105 (17.7%)	0.196
Chronic Kidney Disease	36 (7.5%)	54 (9.1%)	0.344
Chronic Liver Disease	22 (4.6%)	27 (4.5%)	0.982

Data are presented as mean (SD) or number (%).

ASA indicates American Society of Anesthesiologists; HTN, Hypertension; DM, Diabetes mellitus; MI, Myocardial infarction;

*Data were missing for 30 patients.

Supplementary Figure S1. Distribution of the patient's Koval grades according to Hip-MFS.



Supplementary Figure S1. Distribution of the patient's Koval grades according to Hip-MFS.

Plots of mean \pm standard deviation of the Koval grade according to the risk of Hip-MFS at baseline and 6 months after hip fracture surgery. Bars denotes means and horizontal bars denotes standard deviations. P-values shown denote statistical significance of between-group deterioration of Koval grade from baseline and 6 months after surgery by post hoc analysis. The P values of the post hoc analysis between the group of the Hip-MFS from 1 to 3 and group of the Hip-MFS from 4 to 6 or 7 to 8 or 9 to 10 or more than 11 were 0.018, < 0.001, < 0.001 and 0.016, respectively.