



Supplementary Material

10.1302/0301-620X.104B4.BJJ-2021-1326.R2

**Table i.** Value assignments to variables.

Value assignment	0	1	2	3
Postoperative ROM	< 120°	≥ 120°		
Sex	Male	Female		
Age, yrs	< 18	18 to 54	≥ 55	
BMI*, kg/m <sup>2</sup>	< 18.5	18.5 to 23.9	24 to 27.9	≥ 28
Tobacco use	No	Yes		
Alcohol use	No	Yes		
Dominant limb	No	Yes		
Initial injury	Simple	Complex		
Initial treatment	Conservative	Operative		
Duration of stiffness, mths	6 to 10	11 to 20	> 20	
Previous arthrolysis procedures, n	0	1	≥ 2	
Preoperative ROM, ° <sup>†</sup>	< 30	30 to 59	60 to 89	≥ 90
HO <sup>‡</sup>	None and I	II	III	
Pain <sup>§</sup>	None	Mild	Moderate and severe	
Instability	Stable	Moderate	Severe	
Ulnar neuropathy <sup>¶</sup>	None	I	II	III
OA of the Elbow <sup>**</sup>	None	I	II	III

\*Classified according to the Chinese BMI criteria of the Working Group on Obesity in China.

†Classified according to Mansat classification. Mansat classified the severity of elbow stiffness by ROM: > 90°, mild; 60 to 90°, moderate; 30 to 60°, severe; < 30°, extremely severe.

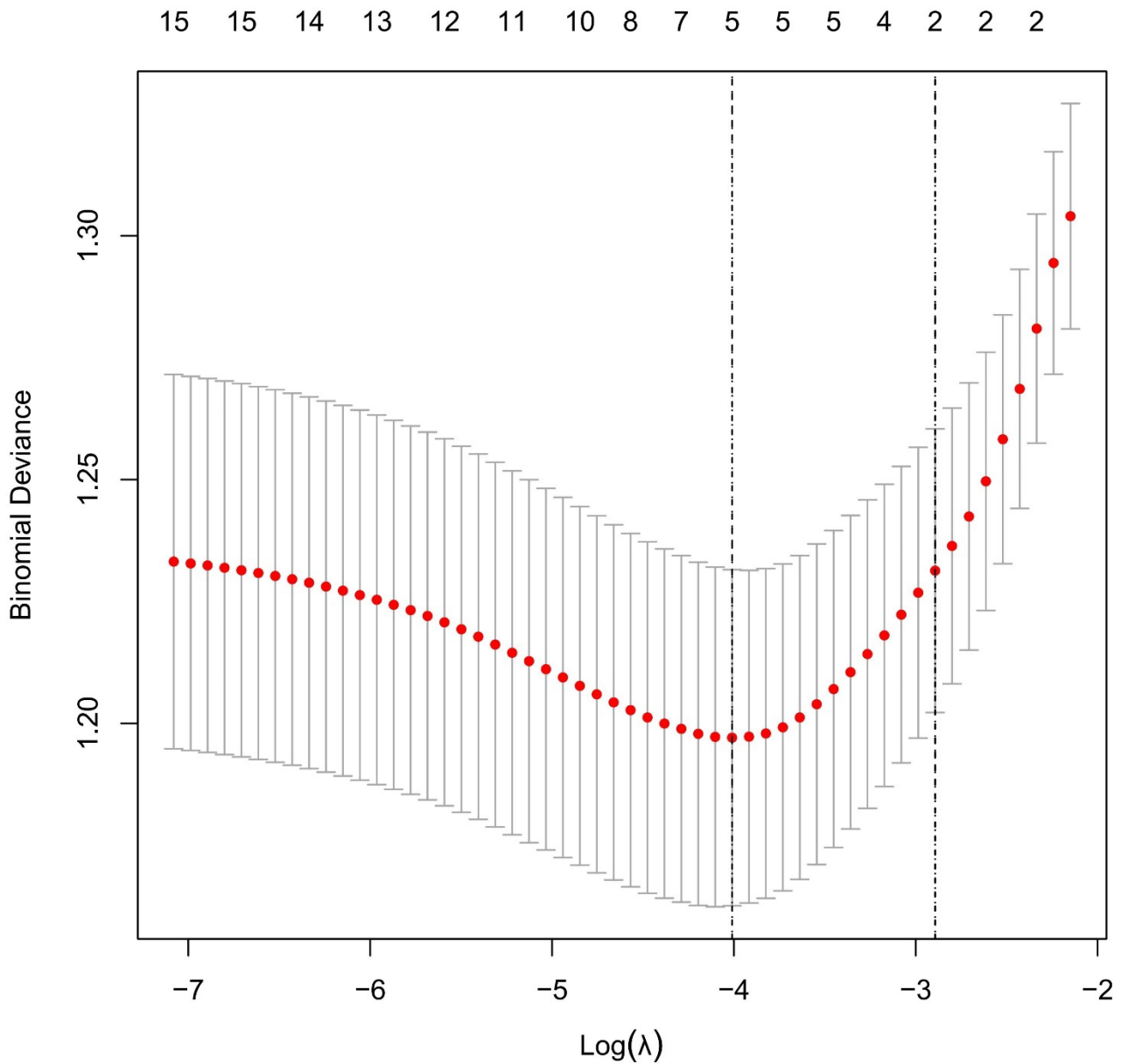
‡Classified according to Hastings and Graham classification: I, no functional limitation; IIA, limited flexo-extension; IIB, limited pronosupination; IIC, IIA combined with IIB; III, ankylosis.

§Classified according to VAS for pain: none (0); mild (1 to 3); moderate (4 to 6); severe (7 to 10).

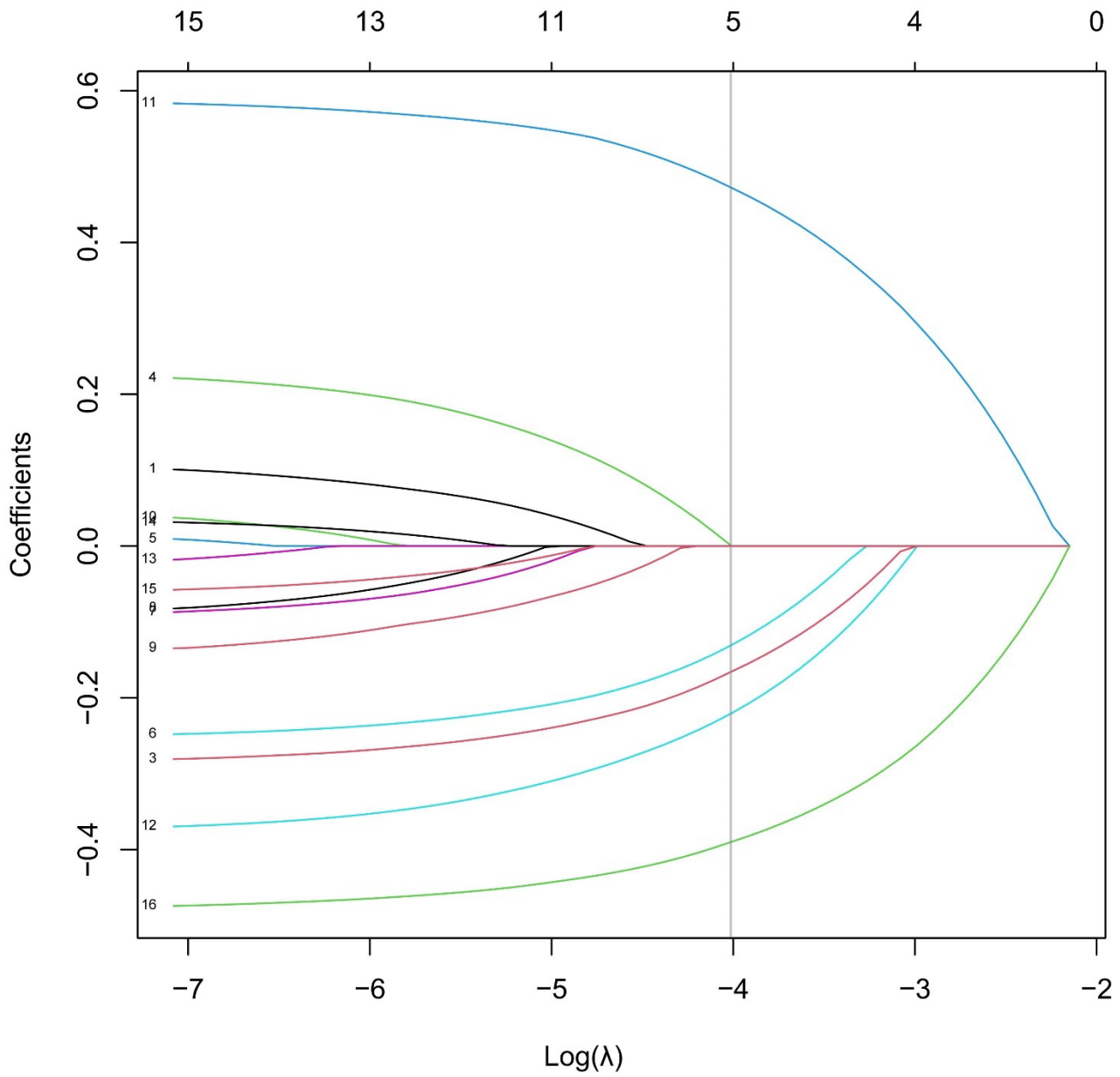
¶Classified according to Dellon classification, which included sensory (paresthesia, vibratory perception, and 2-point discrimination) and motor symptoms (muscle weakness and atrophy).

\*\*Classified according to Broberg and Morrey classification (grade 0, normal joint; grade 1, slight joint-space narrowing with minimum osteophyte formation; grade 2, moderate joint-space narrowing with moderate osteophyte formation; and grade 3, severe degenerative change with gross destruction of the joint).

HO, heterotopic ossification; OA, osteoarthritis; ROM, range of motion.



**Fig. a.** Demographic and clinical feature selection using the LASSO regression model. Optimal parameter ( $\lambda$ ) selection in the LASSO model using five-fold cross-validation. The partial likelihood deviance (binomial deviance) curve was plotted versus  $\text{log}(\lambda)$ . Each  $\lambda$  value in the figure corresponds to an evaluation value (red dot) and its 95% confidence interval (bar). Dotted vertical lines were drawn at the optimal values using the minimum criterion (left) and the 1-standard error criterion (right).



**Fig. b.** LASSO coefficient profiles of the 16 features. A coefficient profile plot was produced against the  $\log(\lambda)$  sequence. A vertical line was drawn at the  $\lambda$  value selected using five-fold cross-validation, where optimal  $\lambda$  (the minimum criterion) resulted in five features with non-zero coefficients.