

CORRECTION

Open Access



# Correction to: Radiological exploration on adjacent segments after total cervical disc replacement with Prodisc-C prosthesis

Shuai Xu<sup>†</sup>, Yan Liang<sup>†</sup>, Fanqi Meng, Kaifeng Wang and Haiying Liu<sup>\*</sup>

**Correction to: J Orthop Surg Res (2019) 14:160**  
<https://doi.org/10.1186/s13018-019-1194-x>

In the original publication of this article [1], the Table 1, 2, 3, 4 and 5 were missing due to a mistake in the copy-editing stage.

Table 1, 2, 3, 4 and 5 are listed below:

The original article has been corrected.

Published online: 08 July 2019

## Reference

1. Xu, et al. Radiological exploration on adjacent segments after total cervical disc replacement with Prodisc-C prosthesis. *J Orthop Surg Res.* 2019;14:160 <https://josr-online.biomedcentral.com/articles/10.1186/s13018-019-1194-x>.

\* Correspondence: [liuhaiying1131@sina.com](mailto:liuhaiying1131@sina.com)

<sup>†</sup>Shuai Xu and Yan Liang contributed equally to this work.

Department of Spinal Surgery, Peking University People's Hospital, Peking University, No. 11 Xizhimen South Street, Xicheng District, Beijing 100044, People's Republic of China



**Table 1** Demographic characteristics and CDDD information of patients

Parameters	Statistics
No. of patients	118
Gender	
Male	65 (55.1%)
Female	53 (44.9%)
Age (years)	46.85 ± 9.38
BMI (kg/m <sup>2</sup> )	24.62 ± 3.72
Follow-up (months)	135.75 ± 8.46
Diagnosis	
Radiculopathy	39 (33.0%)
Myelopathy	27 (22.9%)
Radiculopathy & Myelopathy	52 (44.1%)
No. of levels	
Single level	90 (76.3%)
Double levels	20 (16.9%)
Three levels	8 (6.78%)
Distribution of operated levels	
C3/4	10 (6.5%)
C4/5	32 (20.8%)
C5/6	90 (58.4%)
C6/7	22 (14.3%)
Distribution of adjacent segments	
C2/3	10 (4.2%)
C3/4	30 (12.7%)
C4/5	76 (32.2%)
C5/6	21 (8.9%)
C6/7	77 (32.6%)
C7/T1	22 (9.3%)

Footnote: CDDD Cervical disc degeneration disease, No. Number, BMI Body mass index

**Table 2** Radiographic primary outcomes from preoperation to the final FU

	Preoperation	1-week FU	6-month FU	1-year FU	2-year FU	5-year FU	10-year FU	Final FU
ROM (°)								
UAS	9.10 ± 5.78	6.43 ± 4.40**	7.83 ± 5.36	7.96 ± 4.16*	7.72 ± 4.97	7.60 ± 4.44	7.59 ± 3.86	7.38 ± 3.55*
LAS	7.94 ± 5.95	6.57 ± 4.98	7.61 ± 5.32	8.14 ± 5.76	8.61 ± 5.61*	8.45 ± 5.16	7.41 ± 4.31	7.71 ± 4.33
LOR (°)								
UAS	3.28 ± 5.82	2.28 ± 5.36	2.80 ± 5.00	3.64 ± 4.97	4.75 ± 7.34	5.84 ± 5.50	3.75 ± 3.46	
LAS	3.91 ± 5.32	2.94 ± 5.21	3.94 ± 5.66	4.15 ± 5.15	3.16 ± 5.64	3.98 ± 4.03	5.03 ± 4.95	
IDH (mm)								
UAS	4.72 ± 0.66	4.76 ± 0.71	4.71 ± 0.74	4.66 ± 0.71	4.69 ± 0.72	4.71 ± 0.70	4.71 ± 0.72	4.69 ± 0.72
LAS	4.73 ± 0.95	4.95 ± 1.10	4.77 ± 0.96	4.78 ± 1.01	4.83 ± 0.90	4.73 ± 1.06	4.64 ± 0.95	4.66 ± 0.96

Footnote: FU Follow up, ROM Range of motion, UAS Upper adjacent segment, LAS Lower adjacent segment, LOR Lordosis, IDH Intervertebral disc height

\*: Significance (P<0.05) in comparison to baseline

\*\*: Significance (P<0.01) in comparison to baseline

**Table 3** Pearson correlation analysis among primary outcomes

		UAS-ROM	LAS-ROM	UAS-LOR	LAS-LOR	UAS-IDH	LAS-IDH
UAS-ROM	r	1	0.206	0.043	0.014	0.018	0.011
	P Value		0.000	0.547	0.857	0.692	0.814
LAS-ROM	r		1	0.085	0.007	-0.054	0.104
	P Value			0.236	0.933	0.245	0.025
UAS-LOR	r			1	0.362	0.025	0.114
	P Value				0.000	0.727	0.113
LAS-LOR	r				1	0.115	0.154
	P Value					0.148	0.052
UAS-IDH	r					1	0.451
	P Value						0.000

Footnote: UAS Upper adjacent segment, ROM Range of motion, LAS Lower adjacent segment, LOR Lordosis, IDH Intervertebral disc height

**Table 4** Correlation analysis between primary outcomes and secondary outcomes

		C2-C7 ROM	OP-ROM	C2-C7 LOR	OP-LOR	OP-IDH	Subsidence	Cor-M	Sag-M	HO
UAS-ROM	r	0.573	0.465	0.128	-0.043	-0.075	-0.027	-0.041	0.095	-0.068
	P Value	0.000	0.000	0.005	0.506	0.102	0.589	0.408	0.054	0.167
LAS-ROM	r	0.513	0.395	0.069	0.024	0.003	-0.060	0.028	0.052	0.128
	P Value	0.000	0.000	0.140	0.706	0.951	0.226	0.573	0.295	0.010
UAS-LOR	r	0.086	0.117	0.096	0.179	-0.038	0.183	0.124	0.086	0.072
	P Value	0.237	0.108	0.188	0.014	0.603	0.033	0.146	0.313	0.404
LAS-LOR	r	0.052	0.160	0.057	0.085	0.027	0.061	0.051	-0.001	-0.029
	P Value	0.524	0.048	0.483	0.294	0.743	0.522	0.593	0.991	0.758
UAS-IDH	r	0.011	0.032	-0.029	0.005	0.070	0.018	0.042	0.043	-0.071
	P Value	0.804	0.484	0.526	0.942	0.129	0.718	0.397	0.379	0.152
LAS-IDH	r	0.057	0.131	0.089	0.058	0.179	0.150	0.019	-0.033	-0.173
	P Value	0.214	0.004	0.053	0.373	0.000	0.002	0.696	0.500	0.000

Footnote: ROM Range of motion, OP Operation segment, LOR Lordosis, IDH Intervertebral disc height, Cor-M Coronal migration, Sag-M Sagittal migration, HO Heterotopic ossification, UAS Upper adjacent segment, LAS Lower adjacent segment

**Table 5** Multiple linear regression analysis of primary outcomes

	Coefficient	Unstandardized		Standardized Beta	T	P value
		B	SE			
UAS- ROM	OP-ROM	0.603	0.052	0.499	11.702	0.000
	C2-C7 LOR	0.045	0.018	0.108	2.452	0.015
	OP-IDH	-0.009	0.158	-0.002	-	0.957
					0.054	
	Sag-M	0.875	0.616	0.062	1.421	0.156
	HO	-0.283	0.173	-0.073	-1.635	0.103
LAS-ROM	LAS-IDH	0.417	0.232	0.082	1.799	0.073
	OP-ROM	0.606	0.062	0.435	9.802	0.000
	C2-C7 LOR	-0.010	0.022	-0.021	-	0.650
				0.455		
	HO	0.758	0.210	0.169	3.608	0.000
UAS-LOR	LAS-LOR	0.376	0.089	0.371	4.204	0.000
	LAS-IDH	-0.066	0.461	-0.013	-	0.887
				0.143		
	OP-ROM	0.260	0.143	0.159	1.811	0.073
	C2-C7 LOR	-0.013	0.045	-0.026	-	0.775
				0.287		
	OP-LOR	0.136	0.085	0.142	1.593	0.114
	Subsidence	4.124	2.283	0.182	1.806	0.074
	Cor-M	1.780	2.399	0.069	0.742	0.460
LAS-LOR	UAS-LOR	0.322	0.073	0.338	4.416	0.000
	UAS-IDH	0.418	0.631	0.055	0.662	0.509
	LAS-IDH	0.383	0.433	0.075	0.885	0.378
	OP-ROM	0.126	0.102	0.095	1.239	0.217
UAS-IDH	LAS-LOR	0.001	0.011	0.004	0.053	0.958
	LAS-IDH	0.225	0.062	0.322	3.606	0.000
	OP-IDH	0.138	0.043	0.297	3.206	0.002
	HO	-0.160	0.065	-0.215	-2.475	0.015
LAS-IDH	LAS-ROM	0.012	0.021	0.054	0.539	0.591
	UAS-LOR	0.010	0.019	0.052	0.520	0.604
	LAS-LOR	0.005	0.019	0.028	0.284	0.777
	UAS-IDH	0.502	0.142	0.350	3.531	0.001
	OP-ROM	0.006	0.030	0.020	0.204	0.839
	C2-C7 LOR	0.000	0.009	-0.005	-0.055	0.957
	OP-IDH	0.141	0.070	0.213	2.030	0.045
	Subsidence	0.178	0.449	0.041	0.397	0.692
	HO	0.022	0.107	0.021	0.203	0.839

Footnote: SE Standard error, UAS Upper adjacent segment, ROM Range of motion, LAS Lower adjacent segment, LOR Lordosis, IDH Intervertebral disc height, OP Operation segment, Sag-M Sagittal migration, HO Heterotopic ossification, Cor-M Coronal migration