Variable	Total (N = 240)	Yes (N = 21)	Osteonecrosis No (N = 219)	P Value
Gender*	10tai (N – 240)	1 es (N - 21)	NO (N - 219)	P value
Gender* Female	92 (38.3%)	10 (47.6%)	82 (37.4%)	<0.36
Male	148 (61.7%)	11 (52.4%)	137 (62.6%)	~0.36
Race*	146 (01.776)	11 (32.470)	137 (02.070)	
Caucasian 155 (64.6%) 17 (81.0%) 138 (63.0%)				< 0.333
Black	75 (31.3%)	3 (14.3%)	72 (32.9%)	-0.555
Hispanic	8 (3.3%)	1 (4.8%)	7 (3.2%)	
Asian	2 (0.8%)	0 (0.0%)	2 (0.9%)	
Side of involvement*	2 (0.070)	0 (0.070)	2 (0.770)	
Right	113 (47.1%)	8 (38.1%)	106 (48.4%)	<0.388
Left	127 (52.9%)	13 (61.9%)	113 (51.6%)	-0.500
Body weight at	127 (32.570)	15 (01.570)	113 (31.070)	
presentation†				
Obese	162 (67.5%)	15 (71.4%)	147 (67.1%)	<0.934
Overweight	22 (9.2%)	0 (0.0%)	22 (10.0%)	
Above average	42 (17.5%)	4 (19.0%)	38 (17.4%)	
Below average	12 (5.0%)	2 (9.5%)	10 (4.6%)	
Underweight	2 (0.8%)	0 (0.0%)	2 (0.9%)	
Duration of symptoms†	= (****)	(31273)	_ (***,*)	
Acute	57 (23.8%)	8 (38.1%)	49 (22.4%)	< 0.107
Chronic	183 (76.3%)	13 (61.9%)	170 (77.6%)	
Injury*	- (•)	. (/*/	()	
Yes	68 (28.3%)	3 (14.3%)	65 (29.7%)	< 0.135
No	172 (71.7%)	18 (85.7%)	154 (70.3%)	
Limp at presentation*	. (, v)	. (/		
Yes	137 (57.1%)	0 (0.0%)	137 (62.6%)	< 0.001
No	67 (27.9%)	0 (0.0%)	67 (30.6%)	
No ambulation	36 (15.0%)	21 (100.0%)	15 (6.8%)	
Hip pain at presentation*		()	((((((((((((((((((((
Yes	230 (95.8%)	21 (100.0%)	209 (95.4%)	<0.317
No	10 (4.2%)	0 (0.0%)	10 (4.6%)	
Stability*	. ()	()		
Stable	204 (85.0%)	0 (0.0%)	204 (93.2%)	<0.001
Unstable	36 (15.0%)	21 (100.0%)	15 (6.8%)	
Knee pain (or history of	/	,		
knee pain) at presentation*				
Yes	57 (23.8%)	4 (19.0%)	53 (24.2%)	< 0.596
No	183 (76.3%)	17 (81.0%)	166 (75.8%)	
Postoperative slip				
progression*				
Yes	12 (5.0%)	4 (19.0%)	8 (3.7%)	< 0.002
No	228 (95.0%)	17 (81.0%)	211 (96.3%)	
Pin penetration*				
Yes	29 (12.1%)	17 (81.0%)	12 (5.5%)	<0.001
No	191 (79.6%)	2 (9.5%)	189 (86.3%)	
Intraop. corrected	20 (8.3%)	2 (9.5%)	18 (8.2%)	
Grade†				
1	133 (55.4%)	1 (4.8%)	132 (60.3%)	< 0.001
2	80 (33.3%)	14 (66.7%)	66 (30.1%)	
3	27 (11.3%)	6 (28.6%)	21 (9.6%)	
Amount of reduction†				
Complete	13 (5.4%)	10 (47.6%)	3 (1.4%)	< 0.001
No reduction	160 (66.7%)	0 (0.0%)	160 (73.1%)	
Partial	67 (27.9%)	11 (52.4%)	56 (25.6%)	
Device*				
Pin	101 (42.1%)	18 (85.7%)	83 (37.9%)	<0.001
Cannulated screw	133 (55.4%)	3 (14.3%)	130 (59.4%)	
No device	6 (2.5%)	0 (0.0%)	6 (2.7%)	
Multiple/single pin*				
Multiple pins	89 (37.1%)	16 (76.2%)	73 (33.3%)	< 0.001
Single pin	144 (60.0%)	5 (23.8%)	139 (63.5%)	
No pin	7 (2.9%)	0 (0.0%)	7 (3.2%)	
Clinical result at last follow-				
up examination†				
Excellent	140 (58.3%)	0 (0.0%)	140 (63.9%)	<0.001
Good	33 (13.8%)	0 (0.0%)	33 (15.1%)	
Fair	37 (15.4%)	1 (4.8%)	36 (16.4%)	
Poor	26 (10.8%)	16 (76.2%)	10 (4.6%)	

^{*}Chi-square test with Pearson's continuity correction was applied to all 2×2 chi-square analyses. †Mann-Whitney U test.