# **Supporting Information**

# S 4 Fig.

## A. The comparison of hemoglobin (Hb) level between IVIT and control groups

#### ① Hb level at admission

	IV	_iron		Co	ntro	I		Mean Difference		Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	Year	IV, Random, 95% CI
Cuenca 2004	12.4	2.2	55	12.3	1.8	102	8.8%	0.10 [-0.58, 0.78]	2004	<del></del>
Cuenca 2005	12.4	1.2	20	12.5	1.4	57	8.9%	-0.10 [-0.74, 0.54]	2005	<del></del>
Munoz 2006	12.2	2	24	12.8	2	22	7.2%	-0.60 [-1.76, 0.56]	2006	<del></del>
Karkouti 2006	14	1.1	13	14.2	0.9	13	8.5%	-0.20 [-0.97, 0.57]	2006	<del></del>
Gonzalez-Porras 2009	13.3	0.2	49	14.9	0.4	80	9.9%	-1.60 [-1.70, -1.50]	2009	<del></del>
Bae 2010	12.2	1.5	30	12.7	1.5	30	8.6%	-0.50 [-1.26, 0.26]	2010	<del></del>
Serrano-Trenas 2011	12.1	1.6	99	11.9	1.8	97	9.3%	0.20 [-0.28, 0.68]	2011	<del> -</del>
Munoz 2014	13.8	1.2	182	13.6	1.2	182	9.8%	0.20 [-0.05, 0.45]	2014	<del>  • -</del>
Khalafallah 2016	13.4	1.3	103	13.4	1.3	98	9.6%	0.00 [-0.36, 0.36]	2016	<del></del>
Bernabeu-Wittel 2016	10.9	0.7	103	11	0.7	100	9.8%	-0.10 [-0.29, 0.09]	2016	<del></del>
Kim 2018	12.2	1.5	150	12.5	1.8	150	9.6%	-0.30 [-0.67, 0.07]	2018	<del></del>
Total (95% CI)			828			931	100.0%	-0.26 [-0.86, 0.34]		
Heterogeneity: Tau <sup>2</sup> = 0.9	94; Chi <b>²</b> :	= 389	9.71, df	= 10 (P	< 0.0	00001);	l² = 97%			-2 -1 0 1 2
Test for overall effect: Z=				`		,,				-2 -1 U 1 2 Favours [IV_iron] Favours [Control]

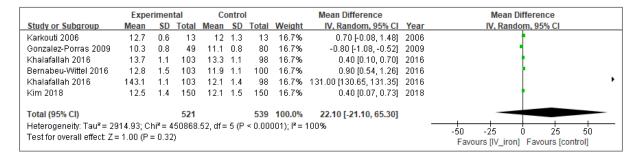
### ② Hb level on postoperative day 1

	IV	iron		Co	ntro	l		Mean Difference		Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	Year	IV, Random, 95% CI
Cuenca 2005	9.6	3	20	9.4	2	57	6.2%	0.20 [-1.21, 1.61]	2005	<del></del>
Munoz 2006	9.8	0.5	24	10	0.5	22	19.3%	-0.20 [-0.49, 0.09]	2006	<del> </del>
Karkouti 2006	8.5	0.4	13	8.3	0.4	13	19.1%	0.20 [-0.11, 0.51]	2006	<del> -</del>
Bernabeu-Wittel 2016	9.2	1.2	103	9.3	1.2	100	18.8%	-0.10 [-0.43, 0.23]	2016	+
Khalafallah 2016	10.6	1.1	103	10.5	1.3	98	18.7%	0.10 [-0.23, 0.43]	2016	<del>*</del>
Kim 2018	9.5	1.7	150	10.7	1.7	150	18.0%	-1.20 [-1.58, -0.82]	2018	
Total (95% CI)			413			440	100.0%	-0.20 [-0.62, 0.21]		•
Heterogeneity: Tau <sup>2</sup> = 0.	21; Chi²		<del>-                                    </del>							
Test for overall effect: Z	= 0.96 (F	9 = 0.	34)							-4 -2 0 2 4 Favours [IV_iron] Favours [control]

### ③ Hb level on postoperative day 7

	IV	-iron		Co	ntro	1		Mean Difference		Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	Year	IV, Random, 95% CI
Munoz 2006	9.5	1	24	10	1	22	15.7%	-0.50 [-1.08, 0.08]	2006	<del></del>
Karkouti 2006	9.7	0.7	13	9.6	0.8	13	15.8%	0.10 [-0.48, 0.68]	2006	+
Bae 2010	10.4	1	30	10.2	1	30	16.2%	0.20 [-0.31, 0.71]	2010	<del>-</del>
Munoz 2014	10.6	1.6	182	9.2	2.2	182	16.9%	1.40 [1.00, 1.80]	2014	-
Bernabeu-Wittel 2016	10	1	103	9.7	0.1	100	17.8%	0.30 [0.11, 0.49]	2016	•
Kim 2018	9.3	1.1	150	10.1	1.2	150	17.6%	-0.80 [-1.06, -0.54]	2018	*
Total (95% CI)			502			497	100.0%	0.12 [-0.52, 0.76]		<b>*</b>
Heterogeneity: Tau² = 0. Test for overall effect: Z		_	-4 -2 0 2 4 Favours [IV_iron] Favours [control]							

### 4 Hb level at 6 weeks or 60 days or 12 weeks postoperatively



# S 4 Fig.

# **B.** Comparison of ferritin levels between IVIT and control groups

#### 1 Ferritin level at baseline or admission

	IV	_iron		Co	ontrol			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Gonzalez-Porras 2009	127	227	49	129	126	80	42.2%	-2.00 [-71.30, 67.30]	<del></del>
Khalafallah 2016	118	209	103	188	103	98	57.8%	-70.00 [-115.22, -24.78]	-
Total (95% CI)			152			178	100.0%	-41.28 [-107.11, 24.55]	•
Heterogeneity: Tau² = 14	20.80; C	-500 -250 0 250 500							
Test for overall effect: Z=	: 1.23 (P	= 0.2	2)						Favours [IV_iron] Favours [control]

### ② Ferritin level on postoperative day 1

IV_iron				Co	ontrol			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Karkouti 2006	258	224	11	259	174	10	16.3%	-1.00 [-171.74, 169.74]	
Khalafallah 2016	304	186	103	329	335	98	83.7%	-25.00 [-100.43, 50.43]	-
Total (95% CI)			114			108	100.0%	-21.08 [-90.08, 47.91]	•
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:			-200-100 0 100 200 Favours (IV_iron) Favours (control)						

### ③ Ferritin level on postoperative day 7

	IV_iron Control				ontrol			Mean Difference	Mean Difference			
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI			
Bernabeau_Wittel 2016	1,067	170	101	249	250	97	51.5%	818.00 [758.21, 877.79]	-			
Karkouti 2006	513	221	11	311	286	10	48.5%	202.00 [-18.18, 422.18]	<del></del>			
Total (95% CI)			112			107	100.0%	519.49 [-83.89, 1122.87]				
Heterogeneity: Tau² = 182 Test for overall effect: Z = 1		-1000 -500 0 500 1000 Favours [IV_iron] Favours [control]										

### ④ Ferritin level at 4 weeks or 60days postoperatively

