

Online Supplement 1: Within-group-comparison to baseline variables

Variable	Group	Baseline	Shock	Resuscitation
Mean arterial pressure [mmHg]	Saline	89 [82; 92]	34 [32; 46]	72 [72; 78]
	Hydroxyethyl-starch	86 [71; 97]	43 [36; 46]	83 [67; 92]
Stroke volume index [mL·m ⁻²]	Saline	43 [31; 53]	24 [22; 25]	50 [48; 58]
	Hydroxyethyl-starch	37 [21; 41]	16 [15; 19]	39 [35; 49]
Cardiac index [L·min ⁻¹ ·m ⁻²]	Saline	3.5 [2.9; 3.8]	1.8 [1.5; 2.0]	4.6 [4.1; 5.4]
	Hydroxyethyl-starch	2.6 [2.0; 3.1]	1.9 [1.4; 2.0]	4.1 [3.2; 5.6]
Perfused vessel density [mm·mm ⁻²]	Saline	15.9 [14.1; 17.5]	11.7 [8.6; 14.7]	13.9 [9.0; 14.1]
	Hydroxyethyl-starch	14.4 [11.0; 16.4]	12.7 [6.7; 13.2]	16.2 [15.9; 17.2]
Microvascular flow index []	Saline	3.1 [2.5; 3.3]	2.0 [1.6; 2.3]	2.7 [2.4; 2.8]
	Hydroxyethyl-starch	2.9 [2.9; 3.1]	2.5 [2.3; 2.7]	3.4 [3.2; 3.5]
Heterogeneity index []	Saline	0.8 [0.6; 1.1]	0.9 [0.7; 1.0]	1.0 [0.9; 1.1]
	Hydroxyethyl-starch	0.7 [0.3; 0.8]	0.7 [0.4; 0.8]	0.3 [0.3; 0.3]
Percentage of perfused vessels [%]	Saline	92 [77; 95]	73 [60; 85]	80 [75; 90]
	Hydroxyethyl-starch	88 [79; 98]	73 [49; 73]	93 [92; 95] ^{\$}

Hemoglobin concentration [g·dL ⁻¹]	Saline	8.8 [8.7; 9.0]	7.9 [7.9; 8.2]	5.8 [5.6; 6.7]
	Hydroxyethyl-starch	8.7 [8.6; 8.9]	8.1 [7.7; 8.4]	5.6 [5.5; 6.7]
Lactate concentration [mmol·L ⁻¹]	Saline	0.6 [0.6; 1.1]	1.5 [1.5; 2.0]	1.5 [0.9; 1.7]
	Hydroxyethyl-starch	1.1 [0.9; 1.2]	2.2 [1.7; 2.4]	2.3 [2.2; 2.7]
Chloride concentration [mmol·L ⁻¹]	Saline	96 [96; 97]	96 [96; 98]	107 [104; 108]
	Hydroxyethyl-starch	95 [94; 96]	97 [93; 98]	96 [94; 98]
Base excess [mmol·L ⁻¹]	Saline	1.7 [1.6; 2.2]	0.1 [0; 2.3]	-6.1 [-6.2; -2.0]
	Hydroxyethyl-starch	-1.2 [-1.8; -0.6]	-1.8 [-2.5; 0.4]	-2.9 [-3.3; 1.1]
Strong ion difference [mmol·L ⁻¹]	Saline	48 [46; 48]	45 [45; 46]	41 [40; 42]
	Hydroxyethyl-starch	47 [44; 47]	45 [43; 46]	42 [42; 44]
pH []	Saline	7.36 [7.33; 7.39]	7.36 [7.35; 7.40]	7.29 [7.28; 7.31]
	Hydroxyethyl-starch	7.31 [7.30; 7.33]	7.28 [7.26; 7.34]	7.34 [7.32; 7.45]

Legend: Groups: Saline: 0.9% sodium chloride solution, Hydroxyethylstarch: 6% hydroxyethyl starch 130/0.4 in balanced carrier solution; \$: significant difference between Shock and Resuscitation with Bonferroni corrected p<0.05.

Online Supplement 2: Additional variables

Variable	Group	Baseline	Shock	Resuscitation
Heart rate [1·min ⁻¹]	Saline	77 [70; 79]	83 [82; 83]	94 [94; 97]
	Hydroxyethyl-starch	70 [70; 73]	96 [83; 101]	107 [92; 108]
Arterial oxygen blood saturation [%]	Saline	100 [100; 100]	100 [100; 100]	100 [100; 100]
	Hydroxyethyl-starch	100 [99,7; 100]	100 [99,7; 100]	100 [100; 100]
Central venous oxygen saturation [%]	Saline	77 [76; 84]	55 [53; 56]	76 [73; 83]
	Hydroxyethyl-starch	73 [73; 81]	53 [52; 57]	85 [84; 85]

Variable	Group	
Body weight [kg]	Saline	43 [43; 48]
	Hydroxyethyl-starch	41 [41; 43]
Calculated blood volume [mL]	Saline	2580 [2580; 2880]
	Hydroxyethyl-starch	2460 [2460; 2580]
Total blood withdrawal [mL]	Saline	1010 [985; 1245]
	Hydroxyethyl-starch	1010 [890; 1050]

Legend: Groups: Saline: 0.9% sodium chloride solution, Hydroxyethylstarch: 6% hydroxyethyl starch 130/0.4 in balanced carrier solution.