

Erratum: Comparative effects of human albumin versus modern hydroxyethyl starch in living-donor renal transplant

In the article titled “Comparative effects of human albumin versus modern hydroxyethyl starch in living-donor renal transplant”, published on pages 23-29, Issue 2, Volume 13 of The Egyptian Journal of Cardiothoracic Anesthesia^[1], The whole Results Section has been incorrectly published. The correct Results Section is mentioned below:

Results

In all, 120 patients, meeting our inclusion criteria, were enrolled in the study and were randomly allocated into one of the two groups: Tetraspan (FRESENIUS KABI, Bad Homburg, Germany) (HES) group and ALB group. All 120 enrolled patients completed the study.

Demographic data (age, sex, BMI, and ASA class) (Table 1) and the preoperative laboratory work were similar in both groups. The intraoperative graft characteristics (cold ischemic time, warm ischemic time, and the total operative time) were also comparable in the two groups (Table 2).

There was no statistical difference in the study colloid volume required intraoperatively for each group (700 ±128.65 ml in the HES group vs. 728.33±139.38 ml in the ALB group, P=0.417) as well as concerning the intraoperative blood loss (Table 2). The use of crystalloids, packed red blood cells (RBCs) and fresh frozen plasma and the diuretics consumption did not vary in between the two groups.

The hemodynamic variables remained stable and did not show a significant difference between the study groups at any of the measuring points, in terms of the mean BP and the CVP (Tables 3 and 4).

Table 1 Demographic characteristics in both study groups

	HES	ALB	P value
Age	37.00 (±10.98)	35.5 (±10.57)	0.592
BMI	27.25 (±3.29)	26.12 (±2.95)	0.168
Gender			
males	28 (46.7%)	26(43.3%)	0.795
females	32 (53.3%)	34(56.7%)	
ASA			
III	44 (73.3%)	38(63.3%)	0.405
IV	16 (26.7%)	22(36.7%)	

ALB, albumin; HES, hydroxyethyl starch.

Table 2 Operative details and graft characteristics

	HES	ALB	P value
Surgical time (mins)	232.5 (±38.77)	225.0 (±27.7)	0.392
Cold ischemia time (mins)	9.80 (±1.11)	9.97 (±1.32)	0.598
Warm ischemia time (mins)	30.40 (±3.53)	31.20 (±2.71)	0.329
Blood loss (ml)	318.33 (±107.86)	315.00 (±113.82)	0.908
Total colloid volume (ml)	700.00 (±128.65)	728.33 (±139.38)	0.417
Start of diuresis			
immediate	56 (93.3%)	54 (90.0%)	1
late	4 (6.7%)	6 (10.0%)	
Need for post-op dialysis			
yes	4 (6.7%)	6 (10.0%)	1
no	56 (93.3%)	54 (90.0%)	

ALB, albumin; HES, hydroxyethyl starch.

Start of diuresis was immediate in all patients except for four (6.7%) in the HES group and six (10%) in the ALB group. In respect of later graft function, it was evaluated using postoperative BUN, CrCl, creatinine (Cr) and 24-h urine volume. We did not observe differences in all these parameters throughout the entire study period being measured on the first, second, third, and seventh post-transplant days, irrespective of whether Tetraspan or ALB was infused (Tables 5 and 6) together with (Figures 1 and 2). Regarding the coagulopathic effect, both groups showed comparable results in their postcolloid infusion INR (Table 7).

Table 3 Mean arterial pressure values over time in both study groups

	HES		ALB	
	Mean	SD	Mean	SD
Preoperative MAP (mmHg)	101	14.07	96.5	12.2
After induction (Intra-op MAP) (mmHg)	89	7.98	86	6.47
Before declamping (intraoperative MAP) (mmHg)	108.6	8.44	105.3	4.97
End of surgery (intraoperative MAP) (mmHg)	99	6.84	102	10.27

ALB, albumin; HES, hydroxyethyl starch; MAP, mean arterial pressure.

Table 4 Central venous pressure values over time in both study groups

	HES		ALB	
	Mean	SD	Mean	SD
Preoperative CVP (mmHg)	9	3.14	10	2.98
After induction (intraoperative CVP) (mmHg)	7	3.23	7.5	3.19
Before declamping (intraoperative CVP) (mmHg)	16.3	1.26	17	1.6
End of surgery (intraoperative CVP) (mmHg)	15	1.83	14	2.05

ALB, albumin; HES, hydroxyethyl starch; CVP, central venous pressure.

Table 5 BUN values in both study groups

	HES		ALB	
	Mean	SD	Mean	SD
BUN preoperative (mg/dl)	71.6	28.8	80.3	46.7
BUN day 1 (mg/dl)	35	6.77	37	6.77
BUN day 2 (mg/dl)	27	6.77	28	7.3
BUN day 3 (mg/dl)	25	7.57	25	8.37
BUN day 7 (mg/dl)	18	4.39	19	4.87

ALB, albumin; BUN, blood urea nitrogen; HES, hydroxyethyl starch.

Table 6 Creatinine clearance values in both study groups

	HES		ALB	
	Mean	SD	Mean	SD
Creatinine clearance preoperative (ml/min)	11.93	5.51	9.93	1.99
Creatinine clearance day 1 (ml/min)	80.33	15.91	78	17.48
Creatinine clearance day 2 (ml/min)	97	17.53	96	17.66
Creatinine clearance day 3 (ml/min)	107	17.23	105	16.49
Creatinine clearance day 7 (ml/min)	112	16.49	110	16.06

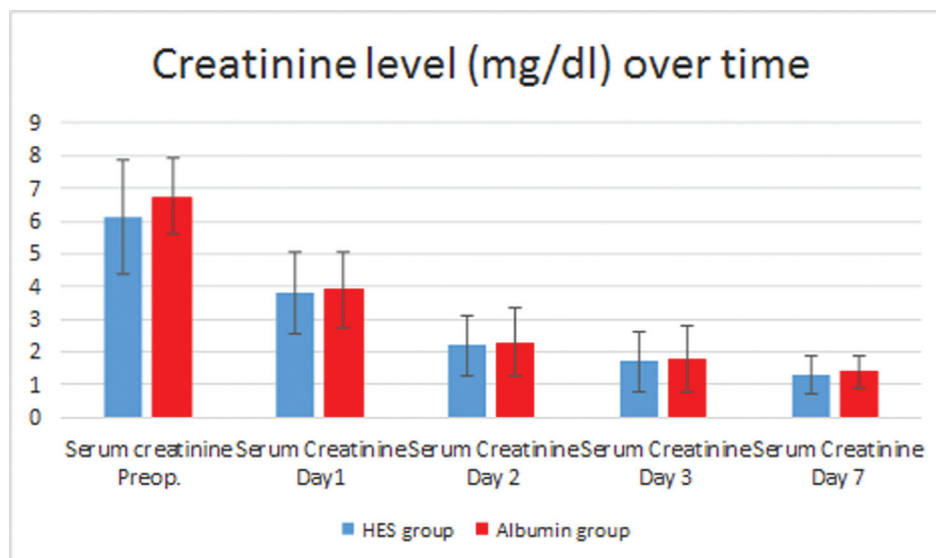
ALB, albumin; HES, hydroxyethyl starch.

Table 7 INR levels in both study groups

	HES		ALB	
	Mean	SD	Mean	SD
Preoperative INR	1.21	0.12	1.19	0.11
INR day1	1.26	0.13	1.24	0.14
INR day 2	1.24	0.14	1.24	0.14
INR day 3	1.21	0.13	1.23	0.14
INR day 7	1.19	0.1	1.2	0.1

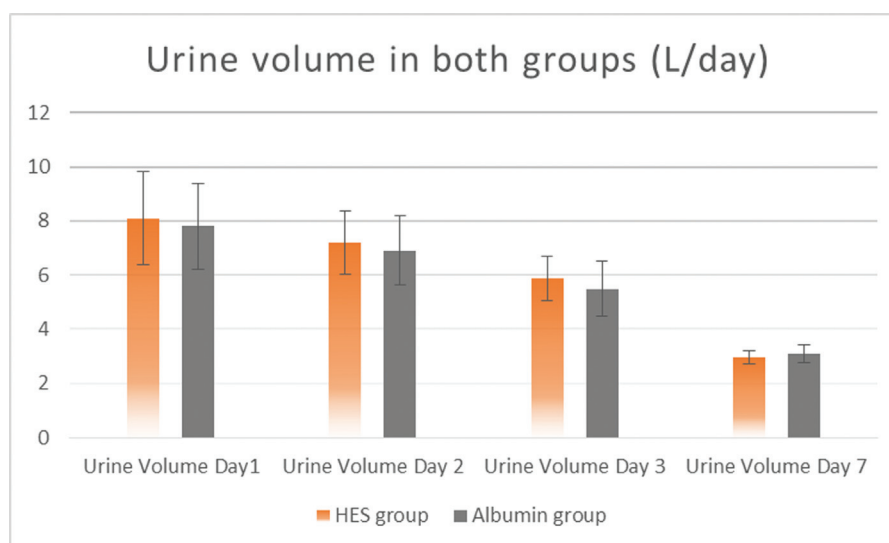
ALB, albumin; BUN, blood urea nitrogen; HES, hydroxyethyl starch; INR, International normalized ratio.

Figure 1



Creatinine values in both study groups.

Figure 2



Twenty-four-hour urine volume in both study groups.

Dialysis was needed for six patients in the ALB group and four patients in the HES group ($P=1$). No cases suffering a graft rejection episode were reported for the 1-week duration of the study following transplantation.

Reference

- 1 Seif NE, Mohammed AK. Comparative effects of human albumin versus modern hydroxyethyl starch in living-donor renal transplant. *Egypt J Cardiothorac Anesth* 2019; 13:23–9.