

Figure S1. pH values pre- and postoperative. Blood samples were measured with an arterial blood gas analyzer right before and at the end of surgery. No Difference pre- or postoperative between Sterofundin ISO Group and Deltajonin Group; data are presented as mean \pm SD.

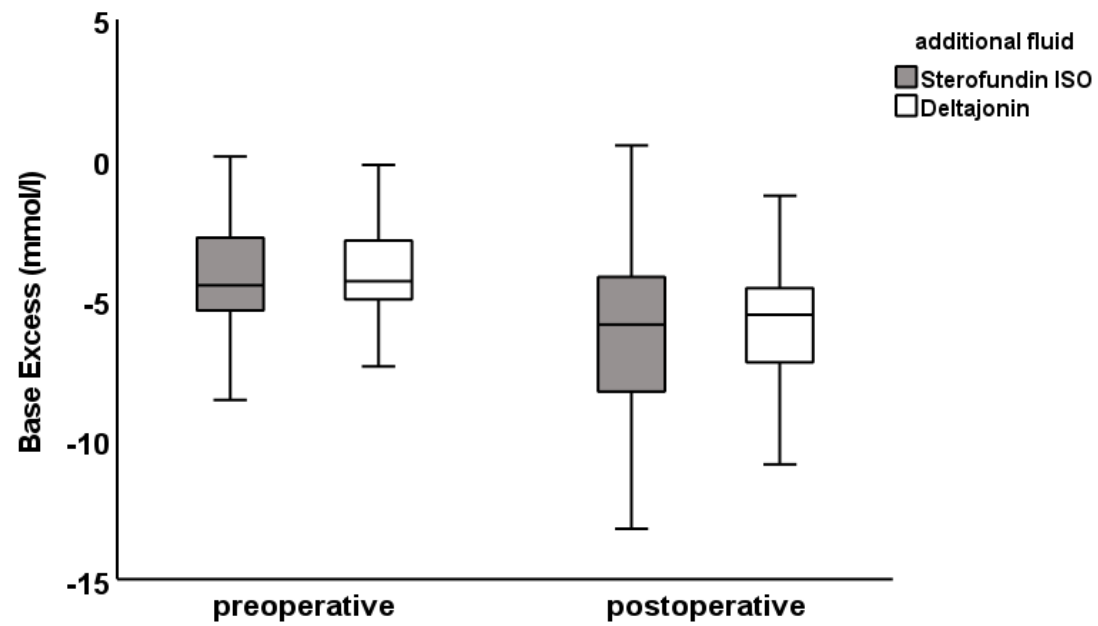


Figure S2. Base Excess values pre- and postoperative. Blood samples were measured with an arterial blood gas analyzer right before and at the end of surgery. No Difference pre- or postoperative between Sterofundin ISO Group and Deltajonin Group; data are presented as mean \pm SD.

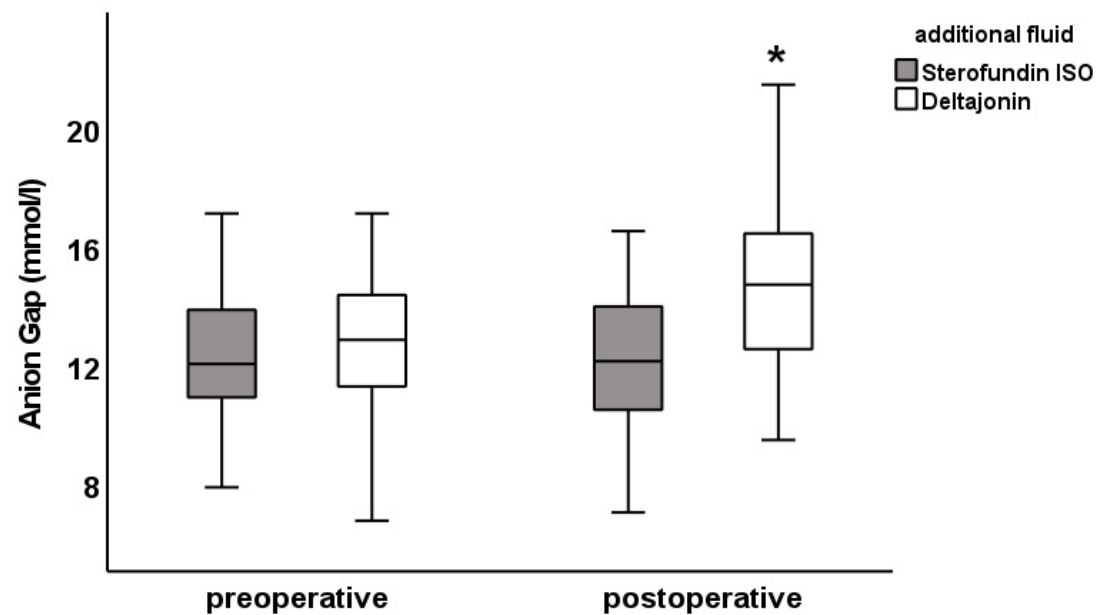


Figure S3. Anion Gap values pre- and postoperative. Anion Gap was calculated with $[AG] = [Na^+] + [K^+] - [Cl^-] - [Bic^-]$. Preoperative: Similar Anion Gap values. Postoperative: Difference between Sterofundin ISO Group and Deltajonin Group; data are presented as mean \pm SD; * $p < 0.05$ vs. Sterofundin ISO.

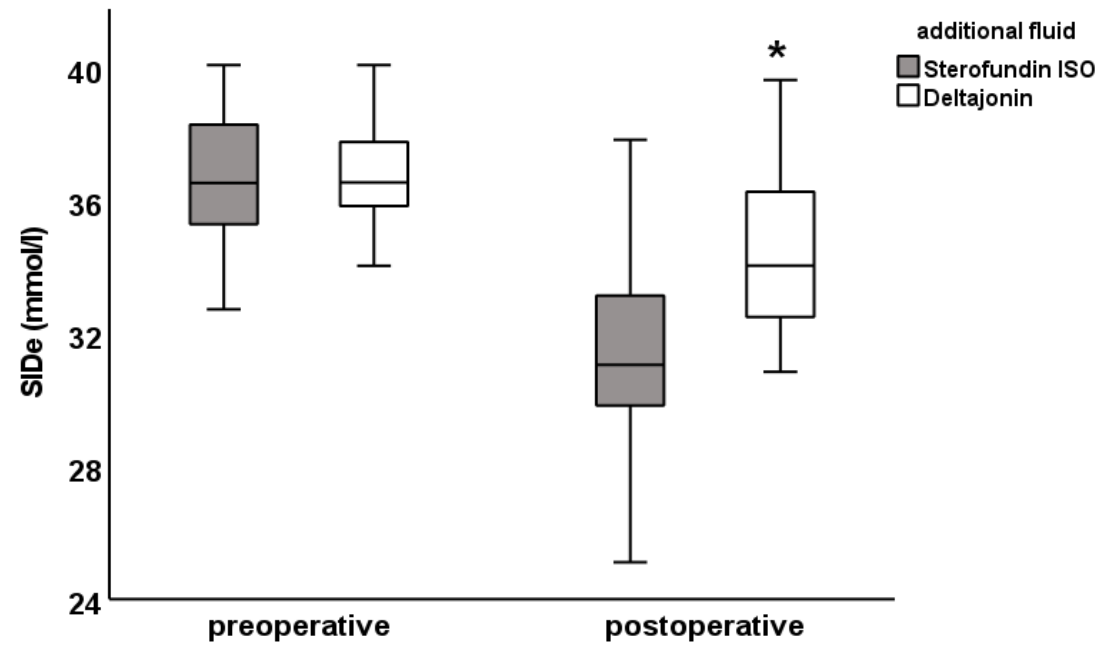


Figure S4. SDe values pre- and postoperative. SDe was calculated with $[SDe] = [A^-] + [Bic]$. Preoperative: Similar SDe values. Postoperative: Difference between Sterofundin ISO Group and Deltajonin Group; data are presented as mean \pm SD; * $p < 0.05$ vs. Sterofundin ISO.

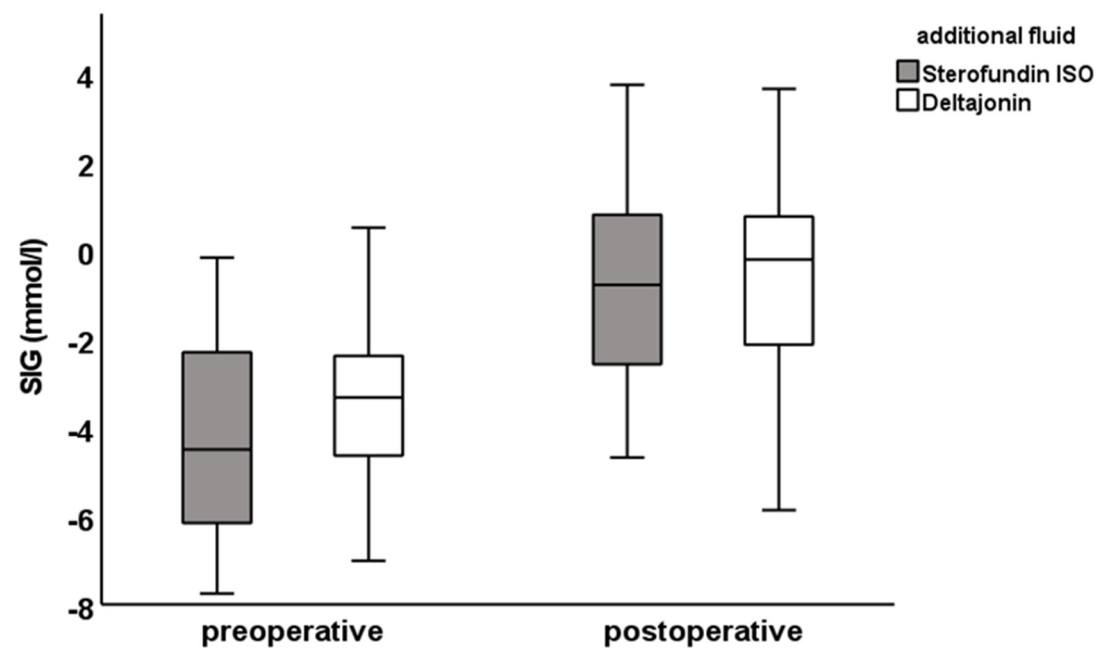


Figure S5. SIG values pre- and postoperative. SIG was calculated with $[SIG]=[SIDa]-[SIDe]$. No Difference pre- or postoperative between Sterofundin ISO Group and Deltajonin Group; data are presented as mean \pm SD.

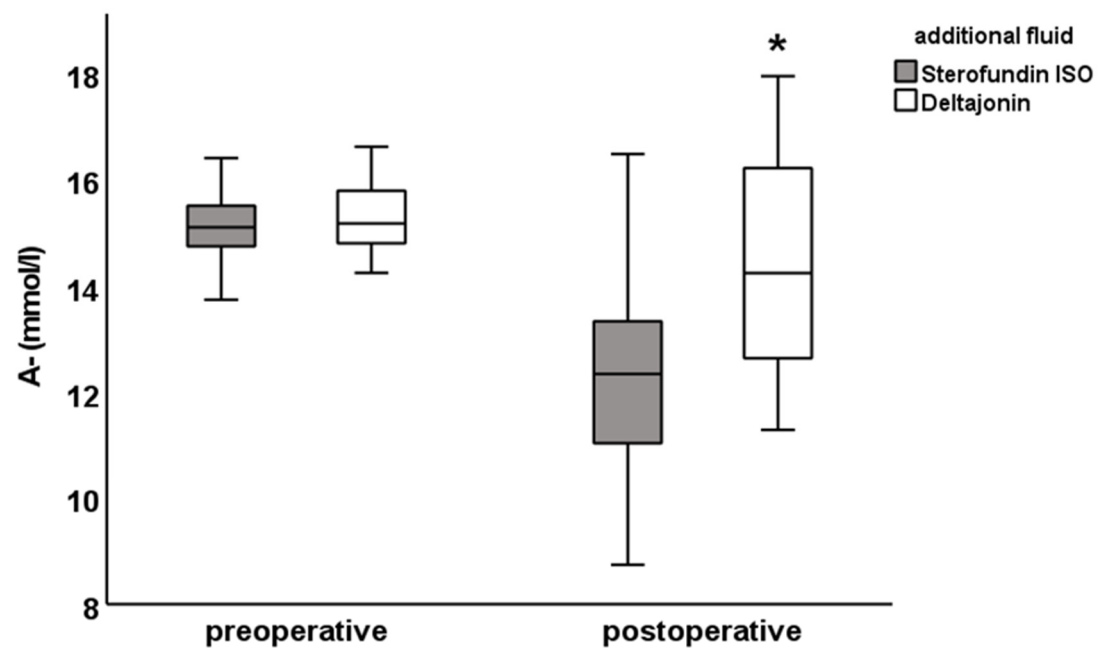


Figure S6. A- values pre- and postoperative. A- was calculated with $[A-] = [\text{albumin} \times (0.123 \times \text{pH} - 0.631)] + [\text{phosphate} \times (0.309 \times \text{pH} - 0.469)]$. Preoperative: Similar A- values. Postoperative: Difference between Sterofundin Iso Group and Deltajonin Group; data are presented as mean \pm SD; * $p < 0.05$ vs. Sterofundin Iso.

Table S1. Standard values.

Na ⁺ -concentration	135-145 mmol/L
Cl ⁻ -concentration	96-111 mmol/L
K ⁺ -concentration	3.5-5.0 mmol/L
Mg ⁺⁺	0.49-1.10 mmol/L
Ca ⁺⁺	2.17-2.66 mmol/L
Lactate	5-20 mg/dL
Albumin (s)	37-51 g/L
Hemoglobin	11.1-14.3 g/dL
Phosphate	1.0-2.15 mmol/L
pH arteriell	7.37-7.45
pCO ₂	35-45 mmHg
Bicarbonate	21-26 mmol/L
Base Excess	-2 – 3 mmol/L
Anionen Gap	12 mmol/L
SID _a	40 bzw. 47 mmol/L
SID _e	39 mmol/L
A ⁻	15 mmol/L

Table S2 Additional patient data.

ID	sex	age [months]	weight [kg]	duration of surgery [min]	ICU stay [days]	diagnosis	surgical technique	infusion
1	m	9	9	195	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Sterofundin ISO®
2	f	8	7	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
3	m	6	9	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
4	m	5	6,2	105	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
5	m	11	9,5	100	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Sterofundin ISO®
6	m	6	6,8	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
7	m	15	8,5	70	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Sterofundin ISO®
8	f	6	8	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
9	m	5	8	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
10	m	4	7,5	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
11	m	6	9	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
12	m	7	7	100	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
13	m	4	6,5	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
14	m	6	6,5	180	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
15	m	5	7	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
16	m	5	7,4	150	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Sterofundin ISO®
17	m	8	9,2	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
18	m	6	8	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
19	f	5	5,7	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
20	f	6	8,9	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
21	m	4	7,3	100	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
22	m	5	7,1	130	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
23	f	5	8,2	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
24	m	5	9	135	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
25	f	14	10	135	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Sterofundin ISO®
26	f	7	7,3	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
27	m	4,5	9	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
28	m	6	6,7	115	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
29	f	5	7,1	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
30	f	6	8	85	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
31	f	5	7	85	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
32	m	4,5	6,1	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
33	f	5	7	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
34	f	6	8	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
35	m	22	12,5	150	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Sterofundin ISO®
36	m	4,5	5,8	80	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
37	m	12	9	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Sterofundin ISO®
38	f	10	9	135	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Sterofundin ISO®
39	m	5	8,2	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
40	f	5	7,9	70	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
41	f	9	8	115	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
42	m	7	7,7	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
43	f	6	7	80	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
44	m	7	8	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
45	m	7	8,1	110	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
46	f	7	7	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
47	m	5	7,1	70	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
48	m	4	6,9	60	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
49	m	7	9	190	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
50	m	5	7,7	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Sterofundin ISO®
51	m	5	8,5	120	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Deltajonin®
52	f	9	7,5	90	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Deltajonin®
53	m	7	8,6	89	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Deltajonin®
54	m	14	10	180	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Modified pi-procedure	Deltajonin®
55	m	4	7,5	60	1	Nonsyndromic Sagittal Craniosynostosis (NSC)	Extended strip craniectomy with parietal osteotomies ("barrel staving")	Deltajonin®

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