

Table S1. Clinical and laboratory parameters in the control group. Data are presented as median and interquartile range (IQR).

Parameters	Control group Me (IQR)		p-value	p-value Mann-Whitney test	
	Before n = 8	After n = 8	Wilcoxon test Before VS After	Bph vs control group Before	Bph vs control group After
Saturation, percent	98 (97–98)	97 (97–99)	0,999	0,001*	0,019*
Respiratory rate	17 (16–18)	16 (16–17)	0,102	<0,001*	0,297
Heart rate,	76 (72–85)	77 (70–85)	0,999	0,820	0,050
Bilirubin, $\mu\text{mol/l}$	99 (7.0–17.2)	10.9 (7.5–14.4)	0.674	0.162	0.254
Total protein,g/l	73 (67.6– 75.6)	72,3 (70.7–73.5)	0.327	0.074	0.374
Creatinine, $\mu\text{mol/l}$	84 (81–92)	88 (80–94)	0.484	0.853	0.789
Glucose, mmol/l	5.0 (4.8–5.3)	5.1 (4.7–5.9)	0.208	0.017*	0.138

Cholesterol, mmol/l	5.36 (4.33–6.00)	4.86 (3.95–5.45)	0.069	0.606	0.204
Lactate dehydrogenase, u/l	165 (154–190)	169 (156–197)	0.327	0.124	0.098
Alanine aminotransferase, u/l	15.2 (13.1–22.7)	16.4 (12.6–24.6)	0.484	0.113	0.150
Aspartate aminotransferase, u/l	20.0 (18.9–22.8)	21.6 (19.1–33.5)	0.123	0.334	0.821
C-reactive protein, mg/l	0.1 (0.1–0.8)	0.75 (0.63–0.88)	0.021*	0.190	0.009*
Total bacterial mass	$4 \cdot 10^{13}$ ($2 \cdot 10^{13}$ – $1.6 \cdot 10^{14}$)	$1.5 \cdot 10^{13}$ ($8 \cdot 10^{12}$ – $2 \cdot 10^{13}$)	0.035*	0.611	0.237
<i>Lactobacillus spp.</i>	$6 \cdot 10^6$ ($1 \cdot 10^5$ – $1 \cdot 10^8$)	$7.5 \cdot 10^6$ ($1 \cdot 10^6$ – $6 \cdot 10^7$)	0.575	0.707	0.237
<i>Bifidobacterium spp.</i>	$4.5 \cdot 10^{10}$ ($9 \cdot 10^9$ – $2 \cdot 10^{11}$)	$1.5 \cdot 10^{10}$ ($1.5 \cdot 10^9$ – $7 \cdot 10^{10}$)	0.058	0.411	0.674
<i>Escherichia coli</i>	$3.5 \cdot 10^8$ ($6 \cdot 10^7$ – $1 \cdot 10^9$)	$4.5 \cdot 10^7$ ($2.5 \cdot 10^6$ – $2 \cdot 10^8$)	0.012*	0.674	0.295
<i>Bacteroides spp.</i>	$4 \cdot 10^{13}$ ($2 \cdot 10^{13}$ – $1 \cdot 10^{14}$)	$1.5 \cdot 10^{13}$ ($8 \cdot 10^{12}$ – $2 \cdot 10^{13}$)	0.035*	0.611	0.237
<i>Faecalibacterium prausnitzii</i>	$5 \cdot 10^{11}$ ($4 \cdot 10^{11}$ – $4 \cdot 10^{12}$)	$1.5 \cdot 10^{11}$ ($5 \cdot 10^{10}$ – $3 \cdot 10^{11}$)	0.017*	0.006*	0.947
<i>Klebsiella pneumoniae</i>	-	-	-	-	-
<i>Klebsiella oxytoca</i>	-	-	-	-	-

<i>Candida spp.</i>	7*10 ⁵ (7*10 ⁵ –7*10 ⁵)	-	-	0.999	-
<i>Staphylococcus aureus</i>	4*10 ⁶ (3*10 ⁵ –4*10 ⁶)	5*10 ⁶ (1*10 ⁶ –5*10 ⁶)	0.655	0.262	0.183
<i>Enterococcus spp.</i>	-	-	-	-	-
<i>Bacteroides thetaiotaomicron</i>	3,4*10 ⁹ (8*10 ⁷ –1.1*10 ¹⁰)	2*10 ⁹ (1*10 ⁸ –4*10 ⁹)	0.173	0.590	0.664
<i>Akkermansia muciniphila</i>	-	1.5*10 ⁸ (1*10 ⁸ –2*10 ⁸)	-	-	0.533
<i>Clostridium difficile</i>	-	-	-	-	-
<i>Clostridium perfringens</i>	-	-	-	-	-
<i>Proteus spp.</i>	2*10 ⁹ (2*10 ⁹ –2*10 ⁹)	-	-	0.500	-
<i>Enterobacter spp.</i>	1*10 ⁸ (5*10 ⁶ –2*10 ¹⁰)	4*10 ⁷ (8*10 ⁶ –1*10 ⁹)	0.600	0.078	0.288
<i>Citrobacter spp.</i>	-	-	-	-	-
<i>Fusobacterium nucleatum,</i>	7.5*10 ⁶ (5*10 ⁶ –7.5*10 ⁶)	3*10 ⁵ (3*10 ⁵ –3*10 ⁵)	-	0.133	0.580
<i>Parvimonas micra</i>	-	-	-	-	-
Ratio <i>Bacteroides fragilis</i> group/ <i>Faecalibacterium prausnitzii</i>	100 (37–779)	163 (100–200)	1.000	0.172	0.999
hemoglobin, g/L	137 (116;150)	130 (117;154)	0.889	0.452	0.169

White blood cells, 10 ⁹ /l	5.4 (5.1–5.8)	5.5 (4.8–5.9)	0.735	0.463	0.514
Erythrocyte Sedimentation Rate (ESR), mm/hour	14.0 (8.0–25.0)	12.5 (6.0–20.3)	0.362	0.563	0.950