Online Supplementary Material

Supplemental oxygen treats periodic breathing without effects on sleep in late-preterm infants

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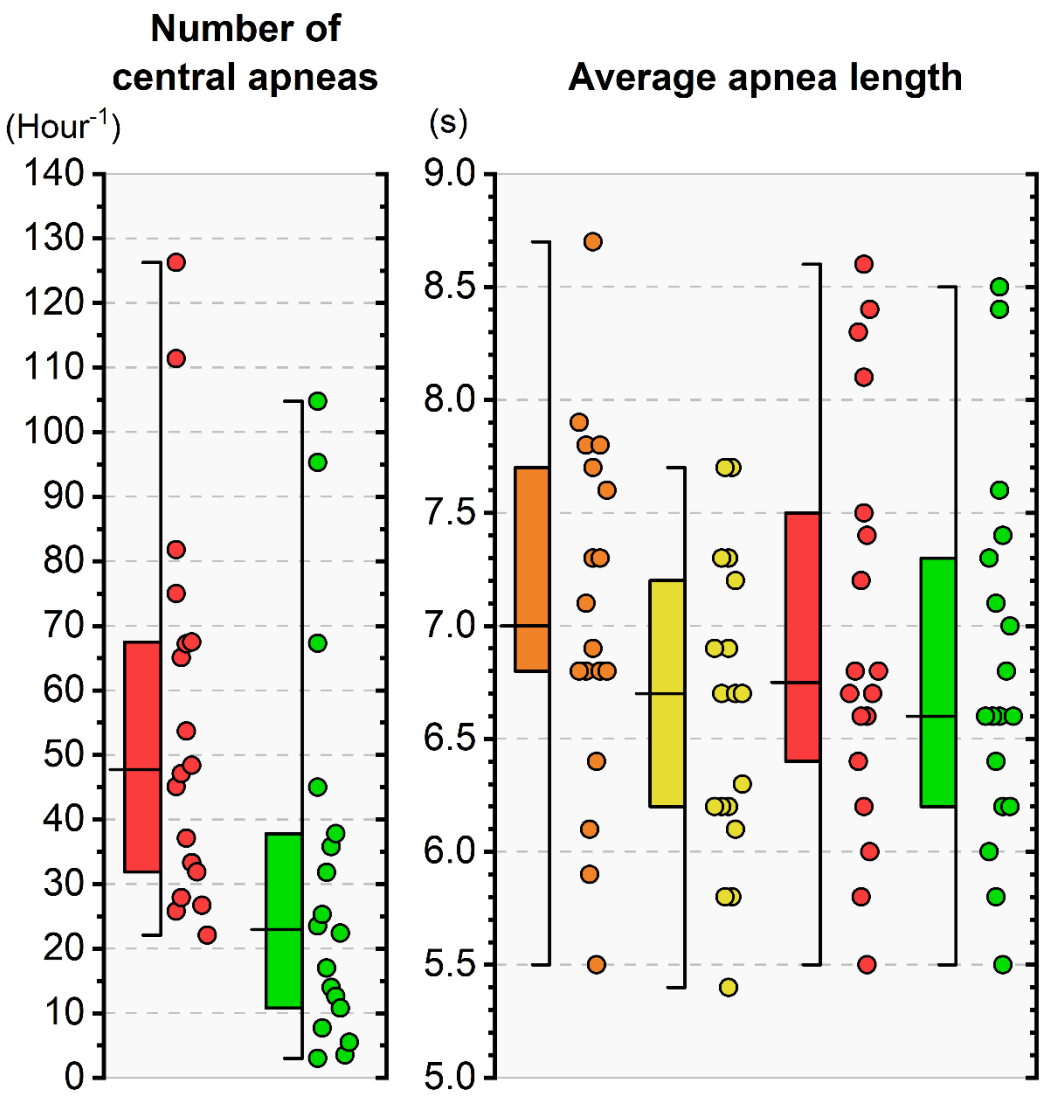
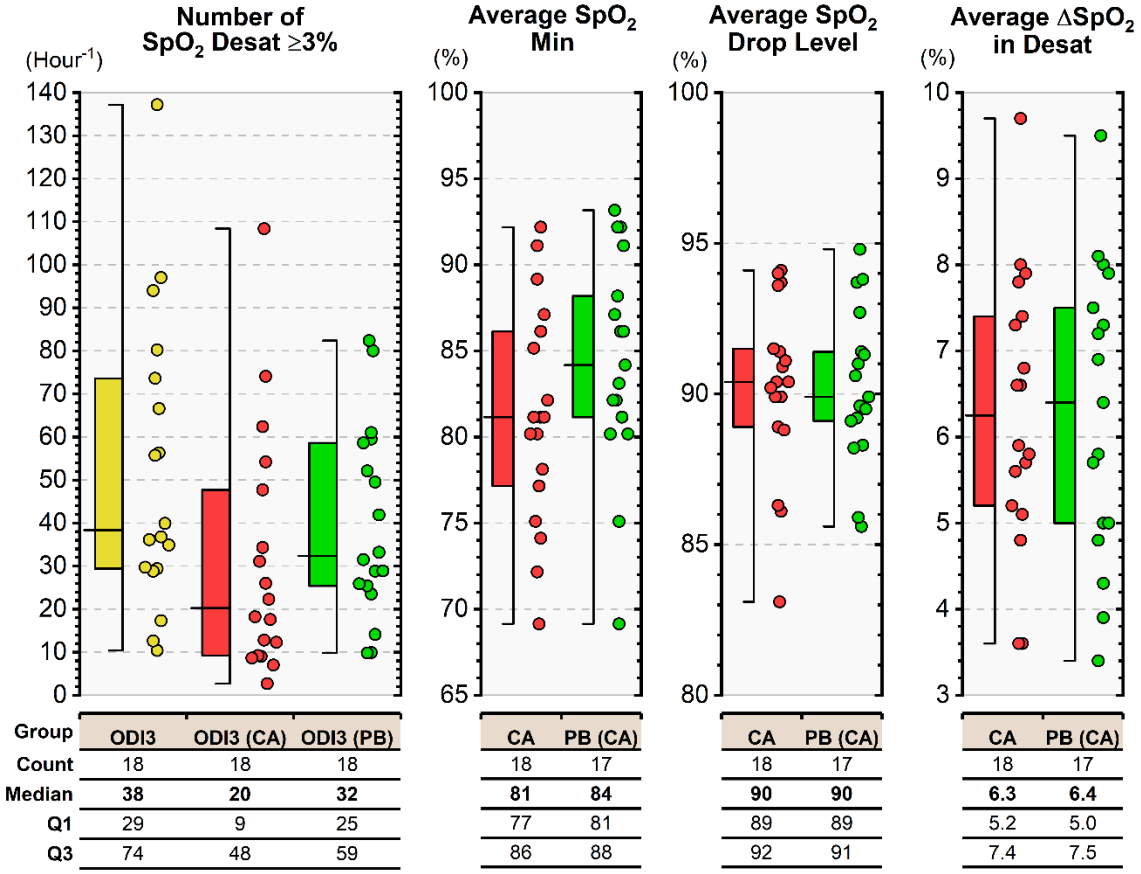


Group	CA	PB (CA)
Count	18	18
Median	**48**	**23**
Q1	32	11
Q3	68	38

A	A (PB)	CA	PB (CA)
18	18	18	18
7.0	**6.7**	**6.8**	**6.6**
6.8	6.2	6.4	6.2
7.7	7.2	7.5	7.3

Supplement Fig. 1. The number and average length of apneas. The average length of apneas related to periodic breathing was only 7s. Still, these apneas were frequently followed by SpO_2 desaturations.

A, apneas; A (PB), apneas during periodic breathing episodes; CA, central apnea; PB (CA), central apneas within periodic breathing, Q1, first quartile (25%); Q3, third quartile (75%).



Group	ODI3	ODI3 (CA)	ODI3 (PB)
Count	18	18	18
Median	**38**	**20**	**32**
Q1	29	9	25
Q3	74	48	59

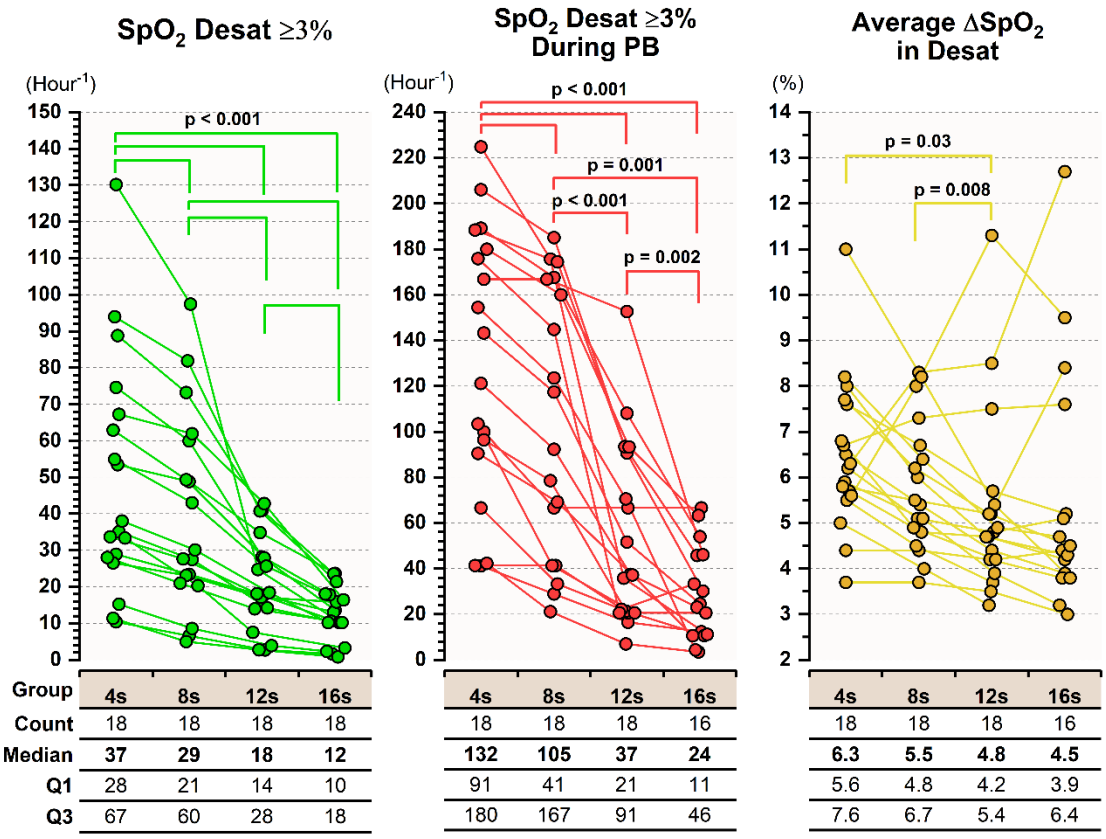
	CA	PB (CA)
Count	18	17
Median	**81**	**84**
Q1	77	81
Q3	86	88

	CA	PB (CA)
Count	18	17
Median	**90**	**90**
Q1	89	89
Q3	92	91

	CA	PB (CA)
Count	18	17
Median	**6.3**	**6.4**
Q1	5.2	5.0
Q3	7.4	7.5

Supplement Fig. 2. The number SpO_2 desaturations of 3% or more, the average SpO_2 minimum during desaturations, the average lowest SpO_2 level during SpO_2 desaturations, and the average SpO_2 drop during desaturations.

The number of desaturations of 3% or more was high, a median 38 (IQR 29-74) per hour. The average SpO_2 drop during desaturations was 6.3 (IQR 5.2-7.4) %. CA, central apnea; Desat, desaturation; ΔSpO_2, SpO_2 change; ODI3, SpO_2 desaturations of 3% or more; ODI3 (CA), SpO_2 desaturation related to central apneas; ODI3 (PB), SpO_2 desaturations occurring with periodic breathing, PB (CA), central apneas within periodic breathing; Q1, first quartile (25%); Q3, third quartile (75%); SpO_2, pulse oximeter oxyhemoglobin saturation.



Group	4s	8s	12s	16s
Count	18	18	18	18
Median	**37**	**29**	**18**	**12**
Q1	28	21	14	10
Q3	67	60	28	18

4s	8s	12s	16s
18	18	18	16
132	**105**	**37**	**24**
91	41	21	11
180	167	91	46

4s	8s	12s	16s
18	18	18	16
6.3	**5.5**	**4.8**	**4.5**
5.6	4.8	4.2	3.9
7.6	6.7	5.4	6.4

Supplement Fig. 3. The effect of signal-averaging time on the detection of SpO_2 desaturations of 3% or more. The number of observed SpO_2 desaturations following apneas is highly decreased as the length of used signal averaging time window increases – only 1/3 of desaturations observed with a 4s signal-averaging time remains noticeable with a 16s signal-averaging time. Most remaining desaturations are milder when observed with a 16s than with a 4s signal-averaging time.

Desat, desaturation; ΔSpO_2, SpO_2 change; PB, periodic breathing; Q1, first quartile (25%); Q3, third quartile (75%); SpO_2, pulse oximeter oxyhemoglobin saturation.