

1 ORIGINAL RESEARCH

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3 Perotin et al

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**Supplementary material**

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8 **Title: High blood eosinophil count at stable state is not associated with airway**

9 **microbiota distinct profile in COPD**

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11 Table S1: Patient's lung function characteristics and questionnaires

	Total	Low BEC	High BEC	p-value
n	59	40	19	
FEV <sub>1</sub> , % pred	46.4 ± 19.6	45.4 ± 17.9	48.7 ± 20.8	0.260
FEV <sub>1</sub> /FVC	47.0 ± 88.9	46.2 ± 11.2	48.6 ± 10.5	0.220
RV, % pred	220.9 ± 26.8	220.6 ± 87.6	221.5 ± 94.4	0.487
TLC, % pred	130.8 ± 23.0	130.1 ± 26.5	132.2 ± 28.1	0.393
DLCO, % pred	46.0 ± 23.0	44.2 ± 22.7	50.9 ± 23.9	0.206
Spirometric GOLD				
1	1 (1.7)	0 (0.0)	1 (5.3)	
2	24 (40.7)	18 (45.0)	6 (31.6)	
3	22 (37.3)	12 (30.0)	10 (52.6)	0.157
4	12 (20.3)	10 (25.0)	2 (10.5)	
GOLD ABE classification				
A	4 (6.7)	3 (7.5)	1 (5.3)	
B	22 (37.3)	15 (37.5)	7 (36.8)	0.944
E	33 (56.0)	22 (55.0)	11 (57.9)	
Arterial blood gases in room air, n				
PaO <sub>2</sub>	73.4 ± 12.6	73.6 ± 13.5	73.2 ± 10.9	0.451
PaCO <sub>2</sub>	39.8 ± 6.3	39.5 ± 6.9	40.4 ± 5.0	0.295
SaO <sub>2</sub>	95.0 ± 3.3	95.1 ± 3.7	94.8 ± 2.7	0.400
6-minute walking test in room air, n				
Desaturation	23 (39.0)	17 (42.5)	6 (31.6)	0.298
Distance, % pred	67.3 ± 23.1	67.6 ± 23.3	66.8 ± 23.5	0.457
CT-scan emphysema score, /24	8 [6-14]	8 [6-14]	8 [4-13]	0.171
HAD scores				
Anxiety score	7.8 ± 4.5	7.7 ± 4.0	8.1 ± 5.7	0.379
Anxiety score > 7	25 (45.5)	17 (45.9)	8 (44.4)	1.000
Depression score	6.6 ± 3.8	6.8 ± 3.6	6.2 ± 4.4	0.299
Depression score > 7	21 (38.2)	14 (37.8)	7 (38.9)	1.000
SF36 scores				
Physical Health	35.2 ± 10.4	34.4 ± 9.6	36.9 ± 12.0	0.211
Mental Health	32.6 ± 18.2	35.0 ± 16.6	28.2 ± 20.7	0.101
SGRQ scores				
Symptom score	53.5 ± 21.4	52.7 ± 21.9	54.7 ± 21.2	0.384
Activity score	66.5 ± 21.6	65.8 ± 22.7	67.9 ± 20.1	0.380
Impact score	42.0 ± 20.9	38.9 ± 22.0	47.6 ± 18.1	0.092
Total score	50.5 ± 19.9	49.4 ± 20.2	52.5 ± 19.9	0.303

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14 Table S2: Prevalence and quantification of the bacteria in the viable airway microbiota in low and high  
 15 BEC groups.

Low BEC	n = 40	%	Med	High BEC	n = 19	%	Med
<i>Streptococcus oralis/mitis/pneumoniae</i>	36	90	1,00E+07	<i>Streptococcus oralis/mitis/pneumoniae</i>	18	94.7	5,50E+06
<i>Veillonella parvula/dispar/atypica</i>	25	62.5	1,00E+06	<i>Streptococcus salivarius/vestibularis</i>	9	47.4	1,00E+06
<i>Rothia mucilaginosa</i>	21	52.5	1,00E+06	<i>Rothia dentocariosa</i>	7	36.8	1,00E+06
<i>Streptococcus salivarius/vestibularis</i>	20	50	1,00E+06	<i>Streptococcus parasanguinis</i>	7	36.8	1,00E+06
<i>Streptococcus parasanguinis</i>	15	37.5	1,00E+06	<i>Actinomyces odontolyticus</i>	6	31.6	1,00E+05
<i>Rothia dentocariosa</i>	14	35	1,00E+06	<i>Neisseria perflava/flavescens</i>	6	31.6	5,50E+04
<i>Neisseria perflava/flavescens</i>	12	30	5,50E+06	<i>Rothia mucilaginosa</i>	6	31.6	1,00E+05
<i>Neisseria subflava/macacae/mucosa</i>	11	27.5	1,00E+07	<i>Actinomyces oris</i>	5	26.3	1,00E+06
<i>Actinomyces oris</i>	8	20	5,50E+05	<i>Haemophilus parainfluenzae</i>	4	21.1	5,50E+05
<i>Streptococcus sanguinis</i>	8	20	7,50E+06	<i>Rothia aerea</i>	4	21.1	5,05E+05
<i>Haemophilus parainfluenzae</i>	7	17.5	1,00E+06	<i>Staphylococcus aureus</i>	3	15.8	1,00E+04
<i>Actinomyces odontolyticus</i>	6	15	5,50E+06	<i>Streptococcus sanguinis</i>	3	15.8	1,00E+07
<i>Haemophilus influenzae</i>	5	12.5	1,00E+07	<i>Actinomyces graevenitzii</i>	2	10.5	5,05E+05
<i>Staphylococcus aureus</i>	5	12.5	1,00E+06	<i>Branhamella catarrhalis</i>	2	10.5	5,50E+07
<i>Escherichia coli</i>	4	10	5,50E+05	<i>Escherichia coli</i>	2	10.5	1,00E+03
<i>Branhamella catarrhalis</i>	3	7.5	1,00E+06	<i>Gemella haemolysans</i>	2	10.5	5,05E+06
<i>Lactobacillus fermentum</i>	3	7.5	5,00E+04	<i>Granulicatella adiacens</i>	2	10.5	5,00E+07
<i>Lactobacillus paracasei</i>	3	7.5	1,00E+04	<i>Haemophilus parahaemolyticus</i>	2	10.5	1,00E+05
<i>Rothia aerea</i>	3	7.5	1,00E+06	<i>Klebsiella oxytoca</i>	2	10.5	5,05E+06
<i>Gemella haemolysans</i>	2	5	5,50E+06	<i>Lactobacillus fermentum</i>	2	10.5	5,50E+03
<i>Gemella sanguinis</i>	2	5	5,50E+04	<i>Lactobacillus paracasei</i>	2	10.5	1,00E+04
<i>Prevotella melaninogenica</i>	2	5	5,50E+06	<i>Lactobacillus salivarius</i>	2	10.5	5,05E+06
<i>Pseudomonas aeruginosa</i>	2	5	5,00E+06	<i>Micrococcus luteus</i>	2	10.5	5,50E+04
<i>Streptococcus constellatus</i>	2	5	5,00E+08	<i>Neisseria subflava/macacae/mucosa</i>	2	10.5	5,01E+05
<i>Streptococcus cristatus</i>	2	5	1,00E+07	<i>Streptococcus cristatus</i>	2	10.5	6,50E+05
<i>Streptococcus gordonii</i>	2	5	5,01E+07	<i>Streptococcus gordonii</i>	2	10.5	5,50E+06
<i>Streptococcus mutans</i>	2	5	5,50E+05	<i>Bifidobacterium dentium</i>	1	5.3	1,00E+03
<i>Actinomyces graevenitzii</i>	1	2.5	1,00E+06	<i>Citrobacter braakii</i>	1	5.3	1,00E+07
<i>Aggregatibacter aphrophilum</i>	1	2.5	1,00E+06	<i>Citrobacter koseri</i>	1	5.3	1,00E+06
<i>Aggregatibacter segnis</i>	1	2.5	1,00E+09	<i>Enterobacter cloacae</i>	1	5.3	1,00E+05
<i>Citrobacter freundii</i>	1	2.5	1,00E+06	<i>Enterococcus faecalis</i>	1	5.3	1,00E+04
<i>Corynebacterium durum</i>	1	2.5	1,00E+09	<i>Haemophilus influenzae</i>	1	5.3	1,00E+07
<i>Corynebacterium propinquum</i>	1	2.5	1,00E+06	<i>Lactobacillus gasseri</i>	1	5.3	1,00E+05
<i>Enterobacter cloacae</i>	1	2.5	1,00E+06	<i>Lactobacillus rhamnosus</i>	1	5.3	5,00E+04
<i>Enterococcus faecalis</i>	1	2.5	1,00E+06	<i>Lactococcus lactis</i>	1	5.3	1,00E+05
<i>Granulicatella adiacens</i>	1	2.5	1,00E+09	<i>Porphyromonas endodontalis</i>	1	5.3	5,00E+04
<i>Hafnia alvei</i>	1	2.5	1,00E+06	<i>Prevotella denticola</i>	1	5.3	1,00E+04
<i>Lactobacillus delbrueckii</i>	1	2.5	1,00E+05	<i>Propionibacterium acnes</i>	1	5.3	1,00E+07
<i>Lactobacillus plantarum</i>	1	2.5	1,00E+05	<i>Pseudomonas aeruginosa</i>	1	5.3	1,00E+03
<i>Micrococcus luteus</i>	1	2.5	1,00E+03	<i>Raoultella ornithinolytica</i>	1	5.3	1,00E+07
<i>Moraxella catarrhalis</i>	1	2.5	1,00E+08	<i>Staphylococcus epidermidis</i>	1	5.3	1,00E+05
<i>Moraxella osloensis</i>	1	2.5	1,00E+03	<i>Staphylococcus haemolyticus</i>	1	5.3	1,00E+07
<i>Morganella morganii</i>	1	2.5	5,00E+06	<i>Staphylococcus hominis</i>	1	5.3	1,00E+07
<i>Neisseria elongata</i>	1	2.5	1,00E+09	<i>Streptococcus agalactiae</i>	1	5.3	1,00E+04
<i>Paracoccus yeei</i>	1	2.5	1,00E+03	<i>Streptococcus constellatus</i>	1	5.3	1,00E+07
<i>Parvimonas micra</i>	1	2.5	1,00E+04	<i>Streptococcus mutans</i>	1	5.3	1,00E+05
<i>Prevotella salivae</i>	1	2.5	1,00E+07	<i>Veillonella denticariosi</i>	1	5.3	1,00E+04
<i>Propionibacterium acnes</i>	1	2.5	1,00E+05	<i>Veillonella parvula/dispar/atypica</i>	1	5.3	1,00E+05
<i>Proteus mirabilis</i>	1	2.5	1,00E+03				
<i>Pseudomonas koreensis</i>	1	2.5	1,00E+03				
<i>Rhizobium radiobacter</i>	1	2.5	1,00E+08				
<i>Selenomonas artemidis</i>	1	2.5	1,00E+06				
<i>Stenotrophomonas maltophilia</i>	1	2.5	1,00E+06				

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<i>Streptococcus peroris</i>	1	2.5	1,00E+08
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