

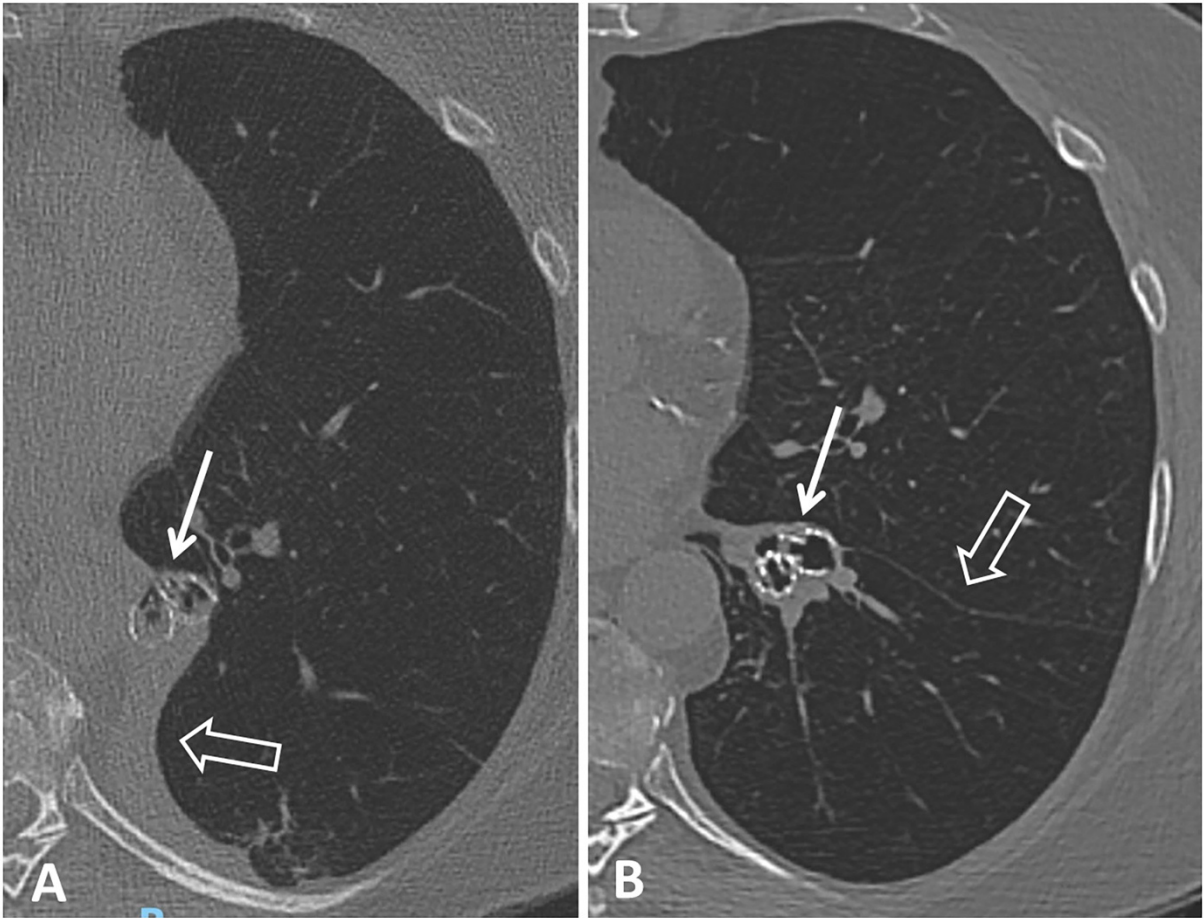
# **Supplementary appendix**

**Supplement to 'revision bronchoscopy after endobronchial valve treatment for emphysema: indications, findings and outcomes'**

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**Figure E1** CT-scan images of patient treated with EBVs (solid arrow) experiencing loss of initial treatment effect. **A.** Showing complete atelectasis of treated lobe (open arrow). **B.** Showing loss of atelectasis (open arrow).

**Table E1** Revision bronchoscopy diagnosis with the corresponding bronchoscopic intervention

		Intervention					
		No intervention	Cleaning of airways/valves	Placement of extra valve(s)	Temporary removal of valves	Permanent removal of valves	Valve replacement
<b>Endoscopic diagnosis</b>	Granulation tissue	1	3	1	5	9	20
	Clinically significant secretions	-	2	-	2	-	4
	Valve migration	-	-	1	-	-	4
	Possible collateral ventilation	-	-	2	-	2	1
	Missing valve	-	-	-	-	-	4
	Valve size mismatch	-	-	1	-	-	3
	No abnormality	-	1	-	-	2	1
	Untreated subsegment	-	-	2	-	-	1
	Airway kinking	2	-	-	-	-	-
<i>Total</i>	3 (4%)	6 (8%)	7 (10%)	7 (10%)	13 (18%)	38 (51%)	

**Table E2** Results of bronchial wash aspirate cultures prior to valve implantation

	Total (n=179) (%)	No granulation tissue (n=140) (%)	Granulation tissue (n=39) (%)
<b>Total number of samples</b>	<b>175 (98%)</b>	<b>136 (97%)</b>	<b>39 (100%)</b>
<b>Total number of positive samples for bacteria</b>	<b>48 (27%)</b>	<b>36 (26%)</b>	<b>12 (31%)</b>
<b>Total number of positive samples for <i>Aspergillus</i> species</b>	<b>25 (14%)</b>	<b>18 (13%)</b>	<b>7 (18%)</b>
<b>Gram-positive bacteria</b>			
<i>Beta-hemolytic streptococcus group C</i>	1 (0.6%)	1 (0.7%)	0 (0%)
<i>Corynebacterium pseudodiphtheriticum</i>	2 (1.1%)	2 (1.5%)	0 (0%)
<i>Staphylococcus aureus</i>	4 (2.3%)	2 (1.5%)	2 (5.1%)
<i>Staphylococcus epidermidis</i>	1 (0.6%)	1 (0.7%)	0 (0%)
<i>Streptococcus mitis</i>	2 (1.1%)	2 (1.5%)	0 (0%)
<i>Streptococcus pneumoniae</i>	6 (3.4%)	3 (2.2%)	3 (7.7%)
<b>Gram-negative bacteria</b>			
<i>Enterobacter cloacae</i>	1 (0.6%)	1 (0.7%)	0 (0%)
<i>Escherichia coli</i>	5 (2.9%)	3 (2.2%)	2 (5.1%)
<i>Haemophilus influenzae</i>	20 (11.4%)	16 (11.8%)	4 (10.3%)
<i>Klebsiella oxytoca</i>	1 (0.6%)	1 (0.7%)	0 (0%)
<i>Klebsiella pneumoniae</i>	1 (0.6%)	1 (0.7%)	0 (0%)
<i>Moraxella catarrhalis</i>	3 (1.7%)	2 (1.5%)	1 (2.6%)
<i>Morganella morganii</i>	1 (0.6%)	0 (0%)	1 (2.6%)
<i>Neisseria meningitidis</i>	1 (0.6%)	1 (0.7%)	0 (0%)
<i>Proteus mirabilis</i>	2 (1.1%)	1 (0.7%)	1 (2.6%)
<i>Pseudomonas spp.</i>	3 (1.7%)	3 (2.2%)	0 (0%)
<i>Serratia marcescens</i>	1 (0.6%)	1 (0.7%)	0 (0%)
<i>Stenotrophomonas maltophilia</i>	4 (2.3%)	3 (2.2%)	1 (2.6%)

**Table E3** New bacterial growth after valve implantation. Five patients showed new bacterial growth of 2 bacteria

	<b>Total (n = 58)</b>	<b>No granulation tissue (n = 24)</b>	<b>Granulation tissue (n = 34)</b>
<b>New bacterial growth present</b>	<b>32 (55%)</b>	<b>9 (38%)</b>	<b>23 (68%)</b>
<i>Haemophilus influenzae</i>	14 (24%)	3 (12%)	11 (32%)
<i>Staphylococcus aureus</i>	10 (17%)	2 (8%)	8 (24%)
<i>Pseudomonas spp.</i>	4 (7%)	2 (8%)	2 (6%)
<i>Moraxella catarrhalis</i>	3 (5%)	0 (0%)	3 (9%)
<i>Stenotrophomonas maltophilia</i>	3 (5%)	2 (8%)	1 (3%)
<i>Enterobacter cloacae</i>	1 (2%)	0 (0%)	1 (3%)
<i>Serratia marcescens</i>	1 (2%)	0 (0%)	1 (3%)
<i>Klebsiella oxytoca</i>	1 (2%)	1 (4%)	0 (0%)