

Supplemental digital content 2

Table 1

Observed mean and 95% CI for the comparison superimposed high frequency jet ventilation (SHFJV) vs single frequency jet ventilation (HFJV).

Outcome variable	Mode	50	100	150	200	300	400	600
$\Delta E_{EV_{CW}}$	<i>HFJV</i>	51.2 (38.8 - 63.6)	91.2 (73.6 - 108.7)	93.0 (83.1 - 103.0)	103.5 (86.5 - 120.5)	98.1 (82.3 - 113.9)	106.6 (86.1 - 127.1)	81.5 (67.8 - 95.3)
	<i>SHFJV</i>	179.8 (148.7 - 211.0)	165.4 (129.6 - 201.2)	184.2 (156.8 - 211.6)	173.2 (149.4 - 196.9)	183.9 (153.3 - 214.6)	169.4 (143.2 - 195.6)	166.1 (139.5 - 192.7)
V_T	<i>HFJV</i>	112.1 (96.7 - 129.9)	53.3 (44.4 - 64.1)	34.0 (28.2 - 41.1)	23.0 (19.1 - 27.6)	14.8 (12.1 - 18.1)	10.0 (8.3 - 12.0)	3.2 (2.7 - 3.8)
	<i>SHFJV</i>	270.1 (236.0 - 309.1)	229.5 (200.7 - 262.4)	214.8 (188.8 - 244.4)	213.2 (191.9 - 236.8)	223.2 (203.4 - 244.9)	228.7 (206.5 - 253.4)	220.5 (197.9 - 245.6)
p_aO_2	<i>HFJV</i>	31.8 (29.1 - 34.8)	17.7 (13.4 - 23.3)	11.3 (8.2 - 15.7)	9.0 (6.5 - 12.4)	5.8 (4.7 - 7.3)	5.8 (4.3 - 7.9)	5.9 (3.7 - 9.4)
	<i>SHFJV</i>	33.8 (31.2 - 36.7)	32.1 (29.3 - 35.3)	30.8 (27.4 - 34.6)	32.0 (29.5 - 34.9)	31.2 (28.5 - 34.2)	31.3 (28.1 - 34.9)	31.3 (27.9 - 35.2)
p_aCO_2	<i>HFJV</i>	7.0 (6.1 - 8.1)	10.3 (8.9 - 11.9)	11.8 (10.4 - 13.2)	12.3 (11.1 - 13.7)	12.5 (11.4 - 13.8)	12.2 (10.7 - 14.0)	12.1 (10.4 - 14.0)
	<i>SHFJV</i>	5.8 (5.1 - 6.7)	6.4 (5.8 - 7.2)	6.8 (6.0 - 7.7)	6.7 (6.0 - 7.6)	6.7 (6.0 - 7.4)	6.4 (5.6 - 7.2)	6.7 (5.9 - 7.7)
PIP_{UPPER}	<i>HFJV</i>	13.2 (11.1 - 15.2)	12.3 (10.6 - 13.9)	11.9 (10.1 - 13.6)	10.7 (8.9 - 12.5)	10.4 (9.0 - 11.8)	9.3 (8.1 - 10.6)	8.0 (6.7 - 9.2)
	<i>SHFJV</i>	25.1 (22.0 - 28.3)	24.4 (21.8 - 27.1)	23.5 (20.9 - 26.2)	23.0 (20.1 - 25.9)	22.6 (19.9 - 25.3)	21.7 (19.7 - 23.8)	20.4 (18.2 - 22.7)
$PEEP_{UPPER}$	<i>HFJV</i>	0.4 (0.2 - 0.6)	0.5 (0.2 - 0.7)	0.5 (0.3 - 0.7)	0.5 (0.3 - 0.8)	0.6 (0.4 - 0.8)	0.8 (0.6 - 1.0)	1.7 (1.3 - 2.2)
	<i>SHFJV</i>	0.5 (0.2 - 0.7)	0.6 (0.4 - 0.8)	0.4 (0.1 - 0.7)	0.5 (0.2 - 0.8)	0.5 (0.2 - 0.9)	0.7 (0.4 - 1.0)	1.1 (0.6 - 1.6)
PIP_{LOWER}	<i>HFJV</i>	9.0 (7.8 - 10.5)	6.9 (5.8 - 8.2)	6.7 (5.8 - 7.7)	6.1 (5.3 - 7.0)	5.9 (5.2 - 6.8)	5.4 (4.7 - 6.2)	5.5 (4.9 - 6.3)
	<i>SHFJV</i>	19.2 (16.9 - 21.9)	17.9 (15.5 - 20.6)	17.3 (15.5 - 19.2)	17.2 (15.6 - 18.9)	17.4 (15.9 - 19.0)	17.2 (15.7 - 18.8)	16.8 (15.1 - 18.7)
$PEEP_{LOWER}$	<i>HFJV</i>	1.7 (1.1 - 2.7)	2.8 (2.2 - 3.4)	3.6 (2.8 - 4.6)	3.6 (2.9 - 4.4)	4.0 (3.2 - 5.0)	4.1 (3.5 - 4.8)	4.6 (3.9 - 5.3)
	<i>SHFJV</i>	4.1 (2.8 - 6.1)	4.8 (3.7 - 6.1)	5.1 (3.9 - 6.6)	5.1 (4.0 - 6.5)	5.2 (4.1 - 6.5)	4.9 (4.1 - 6.0)	4.9 (3.9 - 6.1)

$\Delta E_{EV_{CW}}$: end-expiratory chest wall volume change, f_{HF} : frequency of the high frequency jet ventilation component, HFJV: single frequency jet ventilation, PEEP: positive end-expiratory pressure, PIP: peak inspiratory pressure, index “upper”: proximal of stenotic stent, index “lower”: distal of stenotic stent, SHFJV: Superimposed high frequency jet ventilation, V_T : tidal volume.

Table 2

Observed means and 95% CI for the frequency and obstruction dependence of superimposed high frequency jet ventilation (SHFJV).

Parameter	Stent ID	50	100	150	200	300	400	600
$\Delta E\dot{E}V_{cw}$	2	287 (218 - 378)	323 (255 - 410)	286 (244 - 335)	298 (245 - 363)	278 (238 - 324)	287 (237 - 346)	243 (191 - 309)
	4	173 (142 - 211)	158 (128 - 195)	180 (155 - 209)	170 (149 - 194)	179 (152 - 211)	165 (141 - 193)	162 (139 - 189)
	6	67 (37 - 121)	109 (87 - 138)	136 (113 - 164)	142 (122 - 166)	136 (120 - 154)	147 (125 - 172)	156 (136 - 178)
	8	95 (65 - 139)	132 (112 - 155)	116 (91 - 147)	149 (115 - 194)	145 (127 - 165)	161 (141 - 185)	153 (119 - 196)
V_T	2	114 (79 - 165)	106 (81 - 138)	106 (92 - 123)	90 (67 - 122)	100 (80 - 124)	104 (86 - 125)	122 (96 - 156)
	4	270 (236 - 309)	229 (201 - 262)	215 (189 - 244)	213 (192 - 237)	223 (203 - 245)	229 (206 - 253)	220 (198 - 246)
	6	356 (304 - 417)	292 (253 - 338)	267 (232 - 308)	256 (224 - 292)	245 (218 - 275)	247 (222 - 274)	242 (217 - 270)
	8	477 (434 - 524)	380 (350 - 412)	332 (309 - 357)	321 (299 - 345)	294 (252 - 343)	296 (268 - 328)	269 (235 - 308)
P_{aO_2}	2	19.3 (12.0 - 26.6)	18.2 (11.2 - 25.2)	18.1 (12.7 - 23.5)	15.3 (8.1 - 22.5)	15.3 (10.3 - 20.4)	17.4 (12.1 - 22.7)	21.4 (14.7 - 28.2)
	4	34.1 (31.4 - 36.8)	32.4 (29.5 - 35.3)	31.2 (27.8 - 34.6)	32.3 (29.5 - 35.0)	31.5 (28.7 - 34.3)	31.7 (28.5 - 34.9)	31.7 (28.1 - 35.2)
	6	34.8 (31.2 - 38.4)	33.8 (31.2 - 36.4)	31.1 (27.5 - 34.6)	31.7 (28.4 - 35.0)	31.4 (28.0 - 34.7)	32.4 (29.7 - 35.0)	31.8 (28.4 - 35.2)
	8	30.7 (25.6 - 35.8)	32.5 (29.3 - 35.6)	30.4 (26.3 - 34.4)	31.8 (29.8 - 33.8)	32.1 (28.8 - 35.3)	29.5 (25.0 - 34.0)	28.3 (25.1 - 31.5)
p_aCO_2	2	11.3 (8.6 - 14.8)	11.9 (9.6 - 14.7)	11.6 (9.8 - 13.6)	12.3 (9.8 - 15.5)	12.6 (10.9 - 14.5)	12.2 (10.4 - 14.3)	10.7 (8.8 - 13.0)
	4	5.8 (5.1 - 6.7)	6.4 (5.8 - 7.2)	6.8 (6.0 - 7.7)	6.7 (6.0 - 7.6)	6.7 (6.0 - 7.4)	6.4 (5.6 - 7.2)	6.7 (5.9 - 7.7)
	6	4.7 (3.9 - 5.6)	4.9 (4.0 - 6.1)	5.4 (4.5 - 6.4)	6.1 (5.3 - 7.0)	6.1 (5.3 - 7.0)	6.0 (5.3 - 6.7)	5.9 (5.1 - 6.9)

	8	3.5 (3.0 - 4.1)	4.5 (3.6 - 5.6)	4.7 (4.0 - 5.6)	5.1 (4.3 - 6.1)	5.4 (4.8 - 6.1)	5.4 (4.5 - 6.4)	5.9 (5.0 - 6.9)
PIP_{UPPER}	2	27.4 (25.1 - 29.9)	26.5 (24.0 - 29.3)	25.9 (23.5 - 28.6)	25.3 (22.9 - 28.0)	25.0 (23.1 - 27.1)	24.1 (22.0 - 26.4)	22.1 (19.9 - 24.4)
	4	24.8 (21.9 - 28.1)	24.2 (21.8 - 26.9)	23.2 (20.8 - 26.0)	22.7 (20.0 - 25.7)	22.3 (19.9 - 25.0)	21.6 (19.6 - 23.7)	20.2 (18.1 - 22.5)
	6	25.5 (23.3 - 27.9)	23.5 (21.5 - 25.7)	22.8 (20.6 - 25.2)	21.9 (19.4 - 24.7)	20.5 (18.3 - 22.9)	20.5 (18.1 - 23.2)	18.9 (17.2 - 20.8)
	8	24.5 (22.3 - 26.8)	21.6 (20.4 - 22.9)	20.1 (19.1 - 21.3)	19.9 (18.7 - 21.1)	18.6 (17.1 - 20.3)	18.4 (16.7 - 20.2)	17.8 (15.9 - 20.0)
PEEP_{UPPER}	2	0.4 (0.2 - 0.7)	0.4 (0.2 - 0.6)	0.4 (0.3 - 0.5)	0.4 (0.3 - 0.5)	0.4 (0.2 - 0.6)	0.5 (0.3 - 0.6)	1.1 (0.8 - 1.3)
	4	0.5 (0.2 - 0.7)	0.6 (0.4 - 0.8)	0.4 (0.1 - 0.7)	0.5 (0.2 - 0.8)	0.5 (0.2 - 0.9)	0.7 (0.4 - 1.0)	1.1 (0.6 - 1.6)
	6	0.6 (0.2 - 0.9)	0.9 (0.5 - 1.2)	0.9 (0.4 - 1.3)	0.9 (0.5 - 1.2)	1.0 (0.4 - 1.5)	0.9 (0.4 - 1.3)	1.6 (1.1 - 2.1)
	8	2.2 (1.8 - 2.6)	3.2 (2.0 - 4.3)	4.0 (3.2 - 4.9)	4.1 (3.3 - 4.9)	4.3 (3.2 - 5.4)	4.7 (4.4 - 5.1)	4.8 (3.9 - 5.8)
PIP_{LOWER}	2	14.9 (13.1 - 17.0)	14.1 (12.7 - 15.7)	13.9 (12.7 - 15.3)	13.8 (12.4 - 15.2)	13.7 (12.7 - 14.8)	13.2 (12.4 - 14.1)	13.3 (12.2 - 14.6)
	4	19.2 (16.9 - 21.9)	17.9 (15.5 - 20.6)	17.3 (15.5 - 19.2)	17.2 (15.6 - 18.9)	17.4 (15.9 - 19.0)	17.2 (15.7 - 18.8)	16.8 (15.1 - 18.7)
	6	22.8 (20.6 - 25.1)	20.7 (18.8 - 22.7)	19.2 (17.8 - 20.8)	18.6 (16.9 - 20.5)	17.8 (16.2 - 19.4)	17.5 (15.9 - 19.2)	17.4 (15.8 - 19.1)
	8	23.1 (20.5 - 26.1)	21.0 (18.8 - 23.4)	19.6 (17.8 - 21.5)	19.3 (17.6 - 21.3)	17.9 (16.0 - 20.1)	18.3 (15.7 - 21.3)	17.2 (15.1 - 19.7)
PEEP_{LOWER}	2	7.6 (5.2 - 11.1)	8.6 (6.8 - 10.9)	8.7 (7.3 - 10.3)	8.2 (6.4 - 10.5)	8.4 (7.3 - 9.7)	8.1 (7.0 - 9.3)	7.1 (5.8 - 8.7)
	4	4.1 (2.8 - 6.1)	4.8 (3.7 - 6.1)	5.1 (3.9 - 6.6)	5.1 (4.0 - 6.5)	5.2 (4.1 - 6.5)	4.9 (4.1 - 6.0)	4.9 (3.9 - 6.1)
	6	1.5 (0.7 - 3.1)	2.9 (2.0 - 4.2)	3.7 (2.8 - 4.9)	3.4 (2.4 - 4.6)	4.1 (3.1 - 5.3)	3.8 (3.0 - 5.0)	4.1 (3.3 - 5.1)
	8	2.4 (2.0 - 2.9)	3.4 (2.9 - 4.0)	3.9 (3.0 - 5.0)	3.8 (3.0 - 4.8)	3.6 (2.4 - 5.3)	4.8 (4.8 - 4.8)	4.7 (4.1 - 5.5)

Δ EEV_{CW}: end-expiratory chest wall volume change, f_{HF}: frequency of the high frequency jet ventilation component, PEEP: positive end-expiratory pressure, PIP: peak inspiratory pressure, index “upper”: proximal of stenotic stent, index “lower”: distal of stenotic stent, SHFJV: Superimposed high frequency jet ventilation, V_T: tidal volume.