

Table 1. Clinical Demographics of The Patients

	Remained with tracheostomy		Successfully decannulated		
	n=112		n=59		
	Median (25-75 P)		Median (25-75 P)		P
Median Age (months)					
Current age	66 (42-92)		67 (42-97)		0.57
Age at tracheostomy	5 (2-16)		5 (2-17)		0.52
Age at decannulation	-		22 (12-48)		
Duration of tracheostomy (months)	42 (25-67)		12 (5-20)		<0.001
Gender (Male/Female) (n)	62/50		30/29		0.63
	n	(%)	n	(%)	P
Mortality	18	(11)	0		
Primary Disorders					
Neurological disorder	66	(60)	18	(31)	<0.001
Congenital heart disease	13	(12)	17	(29)	0.015
Chronic pulmonary disease	16	(14)	7	(12)	0.82
Airway abnormalities	8	(7)	12	(20)	0.011
Metabolic/genetic disorder	7	(6)	2	(3)	0.49
Other	2	(1)	3	(5)	0.34
Invasive respiratory support following tracheostomy	59	(53)	23	(39)	<0.001

Bacterial colonization	47	(42)	9	(15)	<b>&lt;0.001</b>
Neurological comorbidities	25	(63)	13	(33)	<b>0.007</b>
Cardiological comorbidities	56	(57)	22	(52)	0.21
Feeding and swallowing disorders	76	(68)	38	(64)	0.27

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Note: Bold values indicate statistically significant differences ( $P < .05$ ) based on the Mann–Whitney U tests for continuous variables and chi-square test for categoric variables.

Table 2. Bronchoscopic Findings of Patients with Tracheostomy Before Decannulation

Abnormal Bronchoscopic		
Findings	N	(%)
Grannulation tissue	28	(47)
Airway malasia	18	(30)
Subglottic/glottic stenosis	8	(13)
Supraglottic collaps	3	(5)
Subglottic hemangiom	2	(3)
Branching abnormalities	1	(2)
Total	60	(100)

Table 3. Risk Factors Affecting Bacterial Colonization

Risk Factor Affecting Bacterial	<u>Univariate</u>	<u>Multivariate</u>
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<b>Colonization</b>	<b>P</b>	<b>P</b>	<b>OR</b>	<b>95% CI</b>
Primary neurological disorders	<b>0.002</b>	<b>0.024</b>	<b>2.93</b>	<b>1.15-7.47</b>
Invasive respiratory support following tracheostomy	<b>&lt;0.001</b>	0.182	1.91	0.74-4.98
Feeding and swallowing disorders	<b>0.005</b>	0.087	2.43	0.88-6.71
Duration of tracheostomy	<b>0.008</b>	0.366	0.99	0.98-1.01

Note: Bold text indicates a statistically significant difference with a P value of less than .05.  
Abbreviations: OR, odds ratio; CI, confidence interval.

Table 4. Risk Factors Affecting Decannulation

<b>Risk Factor Affecting Decannulation</b>	<b><u>Univariate</u></b>	<b><u>Multivariate</u></b>
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	P	P	OR	95% CI
Bacterial Colonization	<b>&lt;0.001</b>	<b>0.005</b>	<b>3.8</b>	<b>0.10-0.66</b>
Invasive respiratory support following tracheostomy	<b>&lt;0.001</b>	<b>0.018</b>	<b>2.9</b>	<b>0.13-0.82</b>
Any neurological disorder (primary disease and / or comorbidity)	<b>&lt;0.001</b>	<b>0.001</b>	<b>5.2</b>	<b>0.07-0.49</b>
Airway abnormalities	<b>0.011</b>	0.685	0.7	0.3-6.6
Congenital heart disease	<b>0.015</b>	0.766	0.8	0.4-3.9

Note: Bold text indicates a statistically significant difference with a P value of less than .05. Abbreviations: OR, odds ratio; CI, confidence interval.

Table 5. Complications After Decannulation

Complication	N (%)
No complication	42 (71.2)

Total complication	17 (28.8)
Stridor	7 (11.8)
Atelectasis	6 (10.2)
Pneumonia	4 (6.8)