

Table (1): Demographic characteristics of 60 studied ventilated neonates.

Variable		Number (%)
Mode of delivery	Normal vaginal delivery	15 (25%)
	Caesarean section	45(75%)
Premature rupture of membrane	No	37 (61.7%)
	Yes	23 (38.3%)
Consanguinity	Negative	38(63.3%)
	Positive	22(36.7%)
Gender	Males	30 (50.0%)
	Females	30 (50.0%)
Birth weight in kg	Mean + SD	1.86+0.59
	Median (range)	1.9 (0.9-3.6)
Gestational age in weeks	Mean + SD	32.65+3.02
	Median (range)	34 (28-41)
Previous ICU admission	No	49 (81.7%)
	Yes	11 (18.3%)
RDS	No	36 (60%)
	Yes	24 (40%)
Mortality	No	50 (83.3%)
	Yes	10 (16.7%)

Table (2): Indication for mechanical ventilation in 60 studied neonates .

Disease	Number (%)
RDS	24 (40.0%)
Severe sepsis	20 (33.3%)
MAS	6 (10.0%)
PPH	5(8.3%)
HIE	2 (3.3%)
Diaphragmatic hernia	2 (3.3%)
Congenital pneumonia	1 (1.67%)

Table (3): Risk factors according to presence or absence of pneumothorax in 60 studied neonates

Risk factors	Cases with pneumothorax N = 12 (20%)	Cases without pneumothorax N = 48 (80%)	P- value
Gestational age in weeks	31.35±3.24	33.95±2.86	0.02*
Birth weight in kg	1.64±0.52	2.08±0.65	0.013*
Gender			0.62
Male	5 (41.7%)	25 (52.1%)	
Female	7 (58.3%)	23 (47.9%)	
Mode of delivery			
NVD	3 (25%)	12 (25%)	0.32
CS	9 (75%)	36 (75%)	
RDS			0.001*
Yes	9 (75%)	15 (31.25%)	
No	3 (25%)	33 (68.75%)	

*Significant

Table (4): Mode of ventilation and selected ventilator settings in 60 studied neonates on mechanical ventilation

Item	Cases with pneumothorax (N= 12)	Cases without pneumothorax (N= 48)	P- value
Mode of ventilation:			0.001*
CPAP (N=10) (no) (%)	1/10 (10%)	9/10 (90%)	
SIMV (N=50) (no) (%)	11/50 (22%)	39/50 (78%)	
SIMV settings			
PIP (mean± SD)	21.12 ± 2.85	17.95 ± 2.102	0.001*
PEEP(mean± SD)	5.90 ± 1.357	5.0 ± 0.450	0.001*
Rate (mean± SD)	62.86 ±12.935	56.15 ± 5.065	0.001*
IT (mean± SD)	0.378 ± 0.072	0.365 ± 0.036	0.69

*Significant, PIP: Peak Inspiratory Pressure, PEEP: Peak End Expiratory Pressure, IT: Inspiratory time

Table (5): The outcome according to the presence or absence of pneumothorax in 60 studied neonates.

Item	Cases with pneumothorax (N= 12)	Cases without pneumothorax (N= 48)	P-value
Mortality			0.001*
Yes	4 (33.3%)	6 (12.5%)	
No	8 (66.7%)	42 (87.5%)	

*Significant,