Table (1): Characteristics of studied 50 neonates with moderate respiratory distress.

Characteristic	
Gender n (%)	
Males Females	36 (72.0%) 14 (28.0%)
Weight(grams)	
Mean ±SD Median (range)	2001.5 ± 683.6 1900 (800-3600)
Gestational age(weeks)	
Mean ±SD Median (range)	33.76 ± 3.23 34 (28-41)
Previous NICU admission n (%)	
No Yes	39 (78.0%) 11 (22.0%)
Perinatal history n (%)	
Mode of delivery	
Normal vaginal delivery Caesarean section	11 (22.0%) 39(78.0%)
Premature rupture of membrane (PROM)	
No Yes	37 (74.0%) 13 (26.0%)
Antenatal steroid	
No Yes Unknown	14(28.0%) 15(30.0%) 21(42.0%)
Consanguinity	
Negative Positive	28(56.0%) 22(44.0%)
Signs of respiratory distress n (%)	
Cyanosis Chest retraction Grunting Tachypnea Cyanosis & chest retraction Tachypnea & chest retraction	16 (32.0%) 15 (30.0%) 12(24.0%) 5 (10.0%) 1 (2.0%) 1 (2.0%)

n=number %=percentage

Table (2): Various etiological diagnoses of the 50 neonates with moderate respiratory distress by chest x-ray and lung ultrasound.

Variable	n (%)
RDS	19(38%)
Type I (white lung)	14 (73.7%)
Type II (predominance of b line)	5(26.3%)
Pneumonia	8(16%)
Transient tachypnea of newborn (TTN)	16(32%)
Meconium aspiration (MAS)	5(10%)
Pleural effusion	2 (4%)

n=number %=percentage

Table (3): Chest ultrasonography findings in 50 neonates with moderate respiratory distress

Disorder	Chest ultrasonography findings	n (%)
RDS (19)	Pleural line abnormality	19 (100%)
	Absence A line	19 (100%)
	Interstitial lung	4 (19%)
	Pulmonary oedema	15 (78.9%)
	Lung consolidation	18 (94,7%)
TTN (16)	Pleural line abnormality	16 (100%)
	Absence A line	16 (100%)
	Interstitial lung	12 (75%)
	Pulmonary oedema	5 (31,25%)
	Double Lung point	12 (75%)
Pneumonia (8)	Pleural line abnormality	7 (87.5%)
	Absence A line	8 (100%)
	Interstitial lung	8 (100%)
	Pleural effusion	1 (12.5%)
	Lung consolidation	8 (100%)
	Absence of lung sliding	2 (25%)
Meconium aspiration syndrome(5)	Pleural line abnormality	4 (75%)
	Absence A line	5 (100%)
	Interstitial lung	4 (75%)
	Pleural effusion	1 (12.5%)
	Lung consolidation,	5 (100%)
	Absence of lung sliding	1 (12.5%)
Pleural effusion (2)	Pleural line abnormality	2 (100%)
	Absence a line	2 (100%)
	Pleural effusion,	2 (100%)
	Lung collapse	2 (100%)

n=number %=percentage

Table (4): Concordance of ultrasound and radiographic results for 19 neonates with respiratory distress syndrome.

Lung Ultrasound Result	Chest Radiographic Result			
	Grade 4	**Grade 3**	**Grade 2**	**Grade 1**
Score 3	0	0	1	8
Score 2	0	0	3	2
Score 1	0	0	1	4

Score 3 lung ultrasound in predicting failure of (NIV) had the following accuracy: sensitivity 71.2%, specificity 80%.While the accuracy of grade 2 chest x-ray to predict intubation was as follows: sensitivity 31.2% , specificity 62.3%.

Table (5): Chest x rays versus chest ultrasonography in diagnosis of neonatal chest diseases.

Diseases	**Chest X- Rays**	**Chest Ultrasonography**	**P-Value**
MAS	3 (6%)	2 (4%)	
Pleural effusion	1(2%)	1(2%)	0.12 NS
Pneumonia	4(8%)	4(8%)	
RDS	11 (22%)	8 (16%)	
TTN	7 (14%)	9 (18%)	

P-value was calculated by McNemar-Bowker Test, NS: No statically significant difference, P>0.05.