

RESULTS

***Table (1):* Demographic data of the two studied groups as regard Sex, Smoking and Associated disease:**

Group Variable		SURVIVORS (21 Patients)		NON SURVIVORS (9 patients)		X ²	p- value	Sig
		No	%	No	%			
Sex	Male	16	76.19%	7	77.77%	0.09	>0.05	NS
	Female	5	23.8%	2	22.22%			
Smoking	Non	8	30.09%	2	22.22%	0.7	>0.05	NS
	Smoker	13	61.9%	7	77.77%			
Associate d diseases	No	9	42.85%	5	55.55%	3.7	>0.05	NS

Table (1) shows non significance difference among two studied groups as regard Sex, Smoking and Associated diseases.

***Table (2):* Demographic data of the two studied groups as regard Age and Duration of COPD:**

	group	N	Mean	SDI	t	p
Age	SURVIVORS	21	63.14	7.094	1.5	>0.05
	NON SURVIVORS	9	67.78	9.909		
Duration of COPD in years	SURVIVORS	21	17.29	5.061	1.2	>0.05
	NON SURVIVORS	9	20.78	8.288		

Table (2) shows non significance difference among two studied groups as regard Age and Duration of COPD in years.

Table (3): Comparison between the two studied groups as regard previous history OF ICU admission and MV:

Group Variable		SURVIVORS (21 patients)		NON SURVIVORS (9 patients)		X ²	p
		No	%	No	%		
Previous history OF ICU admission	Present	5	23.8%	9	100%	14.6	<0.05
	Absent	16	76.19%	0	0		
Previous history of MV	Present	1	4.7%	9	100%	25.7	<0.05
	Absent	20	95.23%	0	0		

MV: mechanical ventilation

ICU: intensive care unit

Table (3)& figure (1) shows statistically significant difference (p value <0.05) between survivors and non survivors as regard previous history of ICU admission and previous history of MV with higher tendency of non survivors (all previously admitted to ICU and received MV) to ICU admission and receive MV.

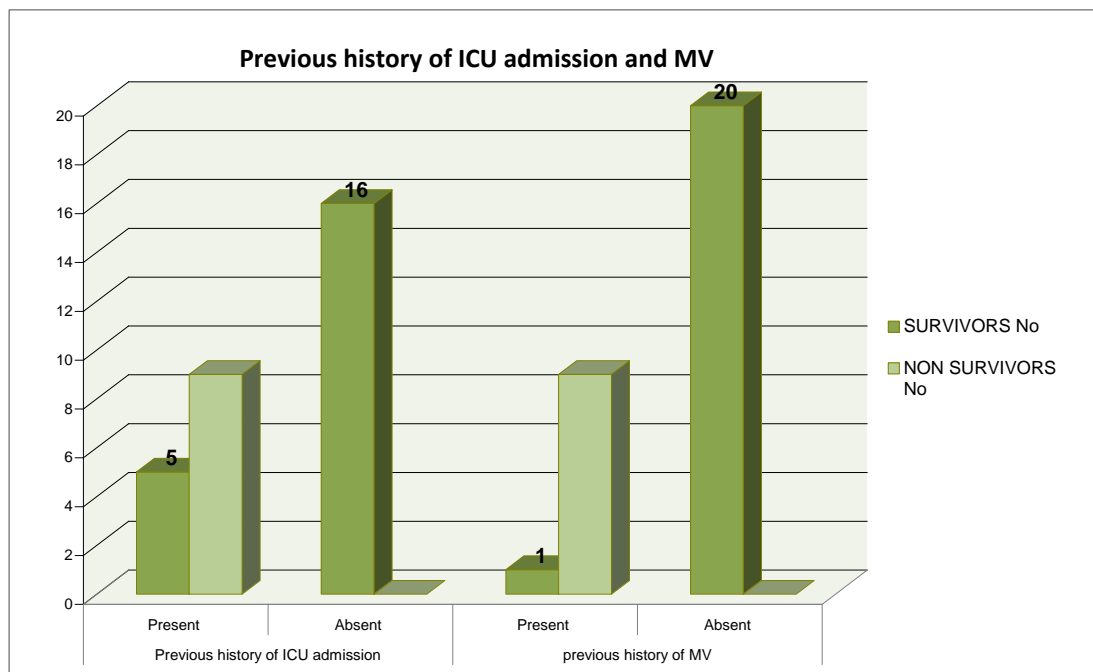


Figure (1): Comparison between the two studied groups as regard previous history of ICU admission and MV.

Table (4): Comparison between two studied groups as regards base line clinical data:

	group	N	Mean	SDI	t	p	Sig
Pulse (HR)	SURVIVORS	21	110.90	17.029	2.1	<0.05	S
	NON SURVIVORS	9	124.00	10.840			
Respiratory rate	SURVIVORS	21	28.48	6.750	3.9	<0.05	S
	NON SURVIVORS	9	35.56	3.206			
Temperature	SURVIVORS	21	37.933	.7080	0.3	>0.05	NS
	NON SURVIVORS	9	38.022	1.1144			
M.A.P	SURVIVORS	21	101.13	11.761	4.1	<0.05	S
	NON SURVIVORS	9	83.40	8.823			
GCS	SURVIVORS	21	13.29	1.419	7.1	<0.05	S
	NON SURVIVORS	9	9.44	1.236			

M.A.P: Mean Arterial Pressure **GCS:** Glasgow Coma Scale

Table (4) shows statistically significant difference between two groups as regard pulse, Respiratory rate which were higher in non survivor group and M.A.P, GCS which were lower in non survivor group. Also shows non significance difference as regard temperature.

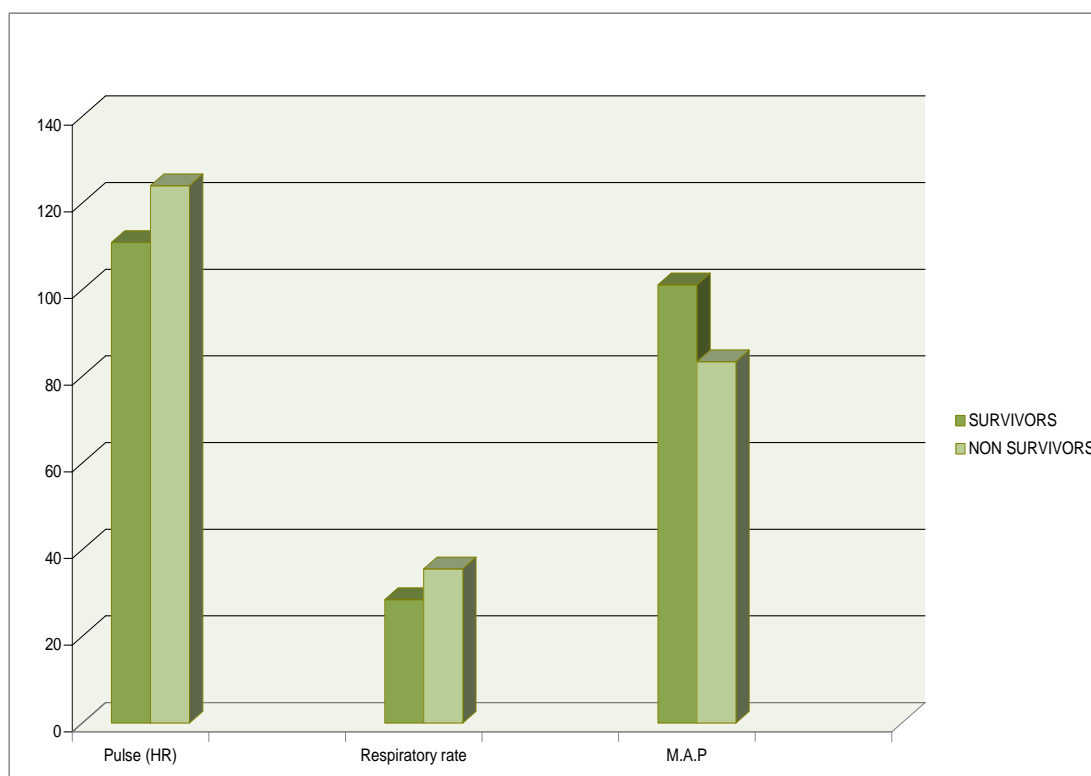


Figure (2): Comparison between the two studied groups as regard pulse, Respiratory rate and Mean Arterial Pressure (MAP).

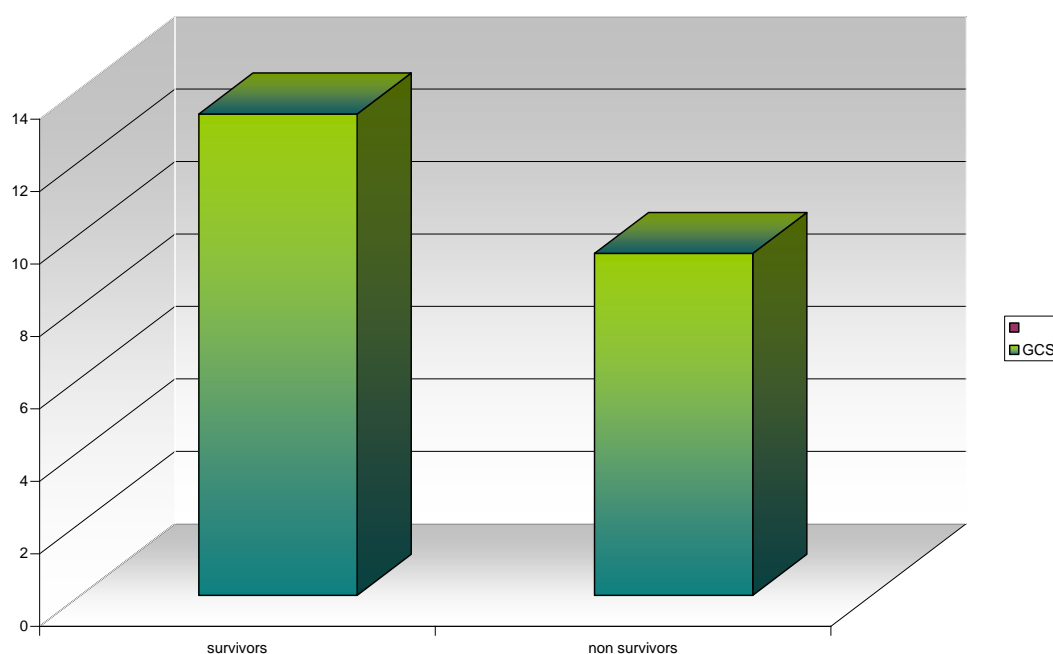


Figure (3): Comparison between the two studied groups as regard Glasgow Coma Scale (GCS).

Table (5): Comparison between two studied groups as regard base line Laboratory data:

	group	N	Mean	Std. Deviation	t	p	Sig
HCT%	SURVIVORS	21	44.66	5.835	1.2	>0.05	NS
	NON SURVIVORS	9	41.67	6.595			
Hb	SURVIVORS	21	14.400	1.7774	1.3	>0.05	NS
	NON SURVIVORS	9	13.391	2.2829			
RBCs	SURVIVORS	21	4.473	1.0414	0.1	>0.05	NS
	NON SURVIVORS	9	4.496	1.4107			
platelets	SURVIVORS	21	269.90	89.895	0.7	>0.05	NS
	NON SURVIVORS	9	235.00	151.987			
WBCs	SURVIVORS	21	15.590	4.4614	1.2	>0.05	NS
	NON SURVIVORS	9	12.611	7.2563			
Neutrophil	SURVIVORS	21	84.36	8.258	0.1	>0.05	NS
	NON SURVIVORS	9	84.49	10.169			
Lymphocytes	SURVIVORS	21	11.05	6.568	0.7	>0.05	NS
	NON SURVIVORS	9	13.50	10.388			
Serum Creatinine	SURVIVORS	21	1.090	.3618	3.8	<0.05	S
	NON SURVIVORS	9	2.511	1.0868			
urea	SURVIVORS	21	41.48	17.927	1.9	>0.05	NS
	NON SURVIVORS	9	60.11	36.092			
Serum Sodium	SURVIVORS	21	136.86	4.661	3.5	<0.05	S
	NON SURVIVORS	9	129.89	5.667			
Serum Potassium	SURVIVORS	21	3.914	.4778	0.3	>0.05	NS
	NON SURVIVORS	9	3.767	1.2166			
Serum Albumin	SURVIVORS	21	3.400	.7463	2.4	<0.05	S
	NON SURVIVORS	9	2.900	.3841			
Serum Bilirubin	SURVIVORS	21	1.176	1.1593	0.9	>0.05	NS
	NON SURVIVORS	9	1.589	1.0682			

HCT%: Hematocrite percentage

RBCs: red blood cells

Hb: hemoglobin

WBCs: white blood cells

Table (5): shows statistically significant difference between the two studied groups as regard serum creatinine which was higher in non survivor group and serum sodium and serum albumin which were lower in non survivor group. Also shows non significance difference between two groups as regard HCT%, Hb, RBCs, Platelets, WBCs, Neutrophils, Lymphocytes, Urea and Serum potassium.

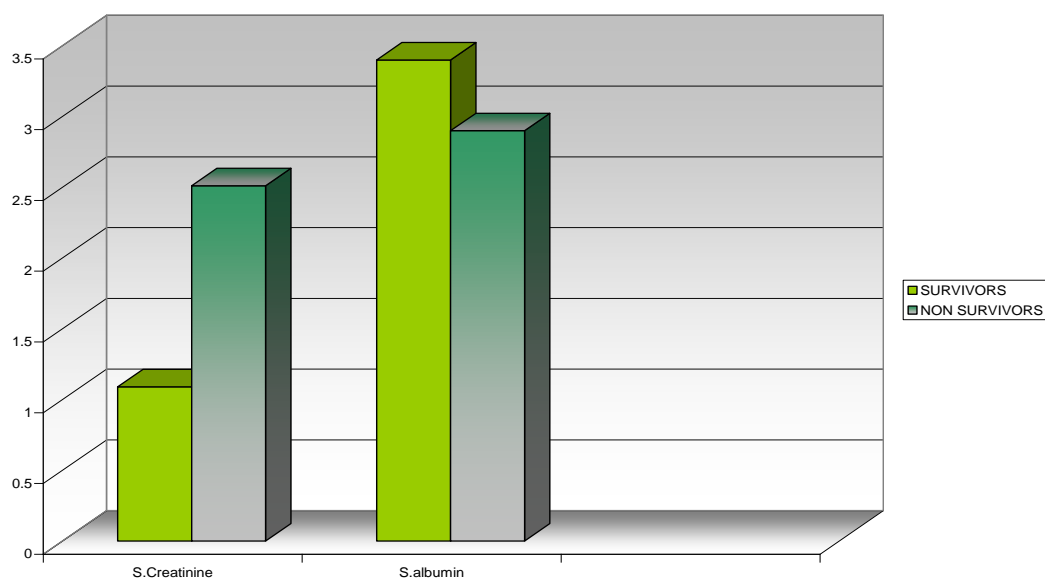


Figure (4): Comparison between the two studied groups as serum creatinine and serum albumin.

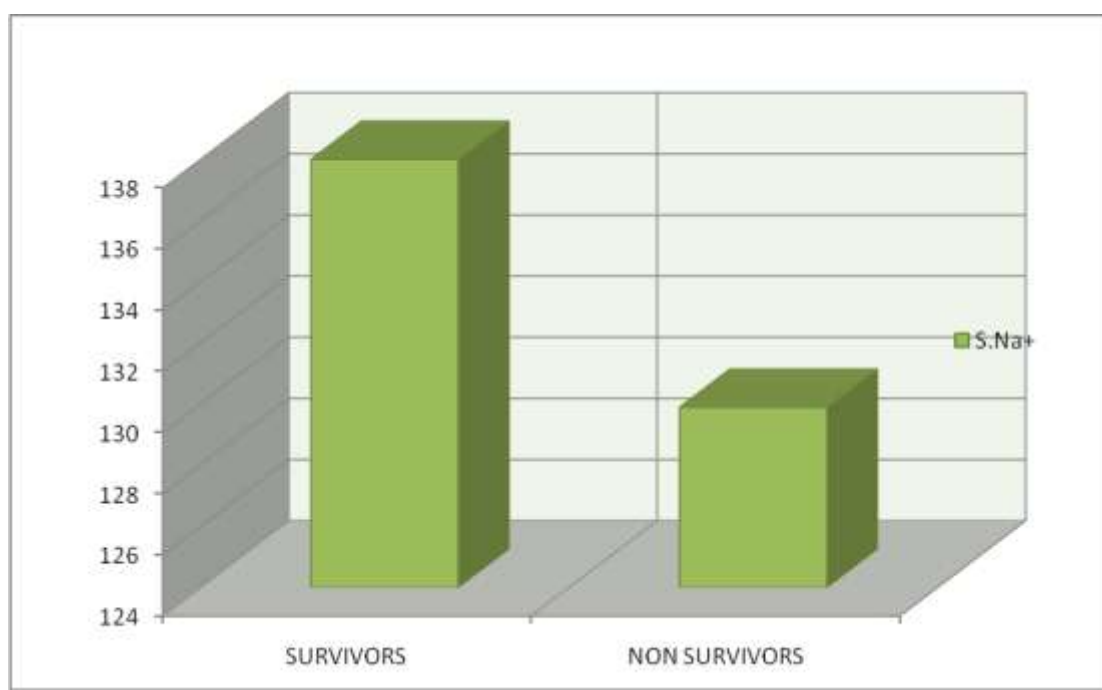


Figure (5): Comparison between the two studied groups as serum sodium.

Table (6): Comparison between the two studied groups as regard baseline arterial blood gases:

	group	N	Mean	Std. Deviation	t	p	Sig
pH	SURVIVORS	21	7.2576	.05796	2.3	<0.05	S
	NON SURVIVORS	9	7.2044	.05525			
Pao2	SURVIVORS	21	52.27	9.256	0.7	>0.05	NS
	NON SURVIVORS	9	50.13	3.965			
Paco2	SURVIVORS	21	86.98	16.353	0.3	>0.05	NS
	NON SURVIVORS	9	88.88	17.925			
HCO3	SURVIVORS	21	37.83	4.757	1.2	>0.05	NS
	NON SURVIVORS	9	40.42	7.434			
Sao2	SURVIVORS	21	77.16	9.176	0.4	>0.05	NS
	NON SURVIVORS	9	75.72	8.793			

Table (6) shows significant difference as regard pH which was lower in non survivors and non significance difference as regard paO₂, PaCO₂, HCO₃ and SaO₂.

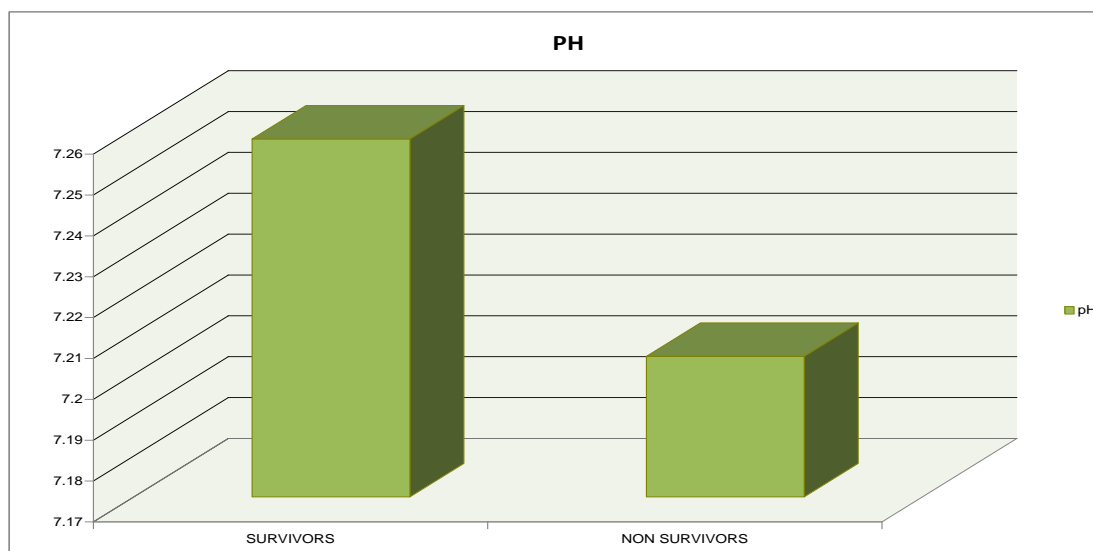


Figure (6): Comparison between the two studied groups as regard PH.

Table (7): Comparison between the two studied groups as regard APACHE II, PDR, ICU_ stay and Hospital stay:

	group	N	Mean	SDI	t	p	Sig
APACHE II	SURVIVORS	21	19.48	7.339	5.7	<0.05	S
	NON SURVIVORS	9	34.44	3.941			
PDR	SURVIVORS	21	36.543	22.3062	5.7	<0.05	S
	NON SURVIVORS	9	80.589	9.5202			

PDR: predicted death rate.

Table (7): shows statistically significant difference between the two groups as regard APACHE II Score, PDR which were higher in non survivor group.

Table (8): Comparison between the two studied groups as regard ICU_ stay and Hospital stay:

	group	N	Mean	SDI	t	p	Sig
ICU _stay	SURVIVORS	21	4.67	3.440	2.3	<0.05	S
	NON SURVIVORS	9	2.22	2.224			
Hospital stay	SURVIVORS	21	7.86	4.396	8.1	<0.05	S
	NON SURVIVORS	9	.00	.000			

Table (8): shows statistically significant difference between the two groups as regard ICU stay and Hospital stay which were lower in non survivor group.

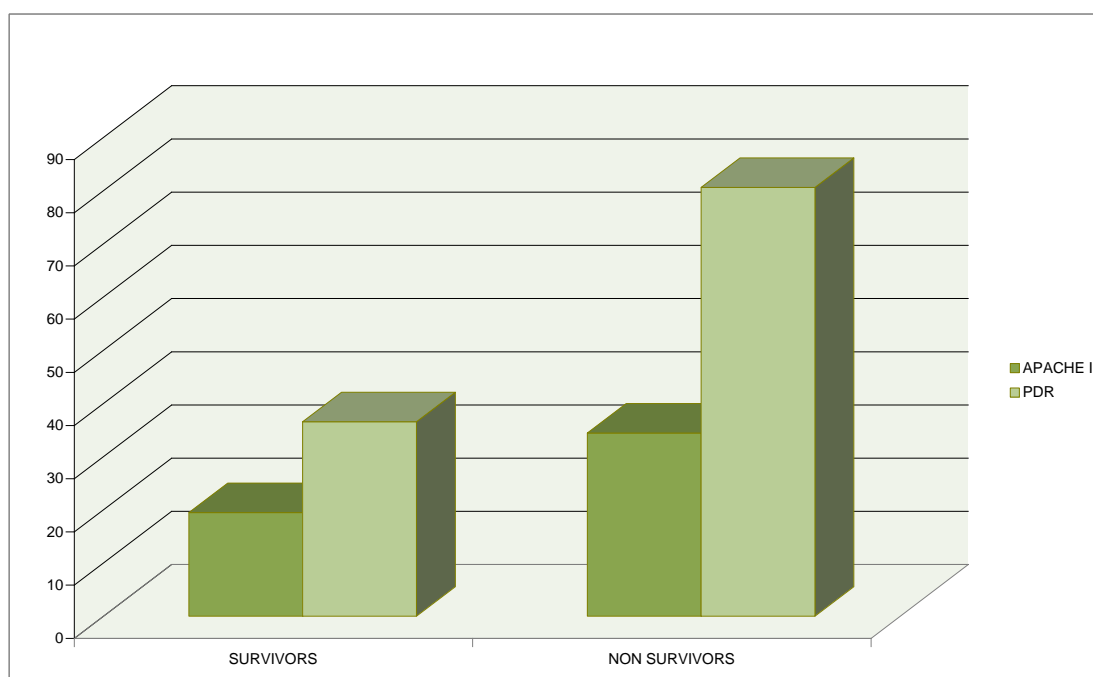


Figure (8): Comparison between the two studied groups as regard APACHE II and PDR.

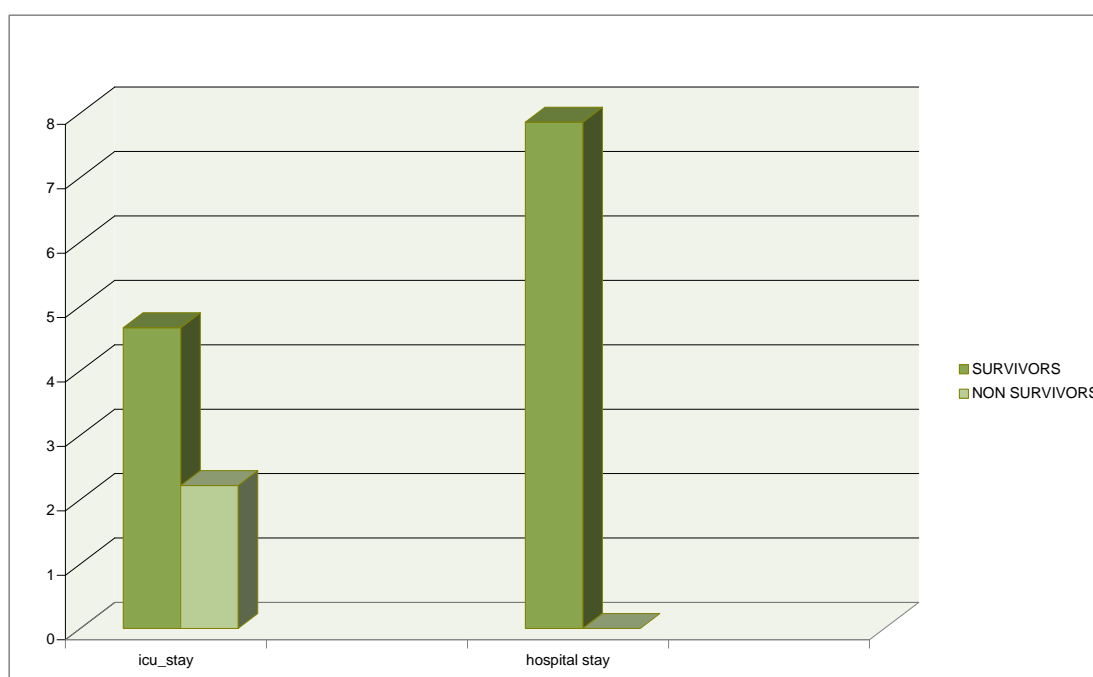


Figure (8): Comparison between the two studied groups as regard ICU stay and hospital stay.

Table (9): comparison between the two studied groups as regard outcome of ventilatory support:

	Non invasive Ventilation	Invasive Mechanical Ventilation
Survivors	6 (75%)	5 (35.7%)
Non Survivors	2 (25%)	9 (64.3%)
total	8 (26.66% of all patients)	14 (46.66% of all patients)
Z	2.2	1.5
P	<0.05	>0.05
Successful	5 (62.5%)	5 (35.7%)
Failure	3	9

Table (9) shows significant difference between the two studied groups as regard the use of NIV or IMV with tendency to good outcome when NIV used.

N.B: the group of non survivors (9 patients) represents the mortality rate of this study which equal (30%).

N.B: failure of NIV means conversion to IMV where here 2 died and 1 success while failure of IMV means patients all died.

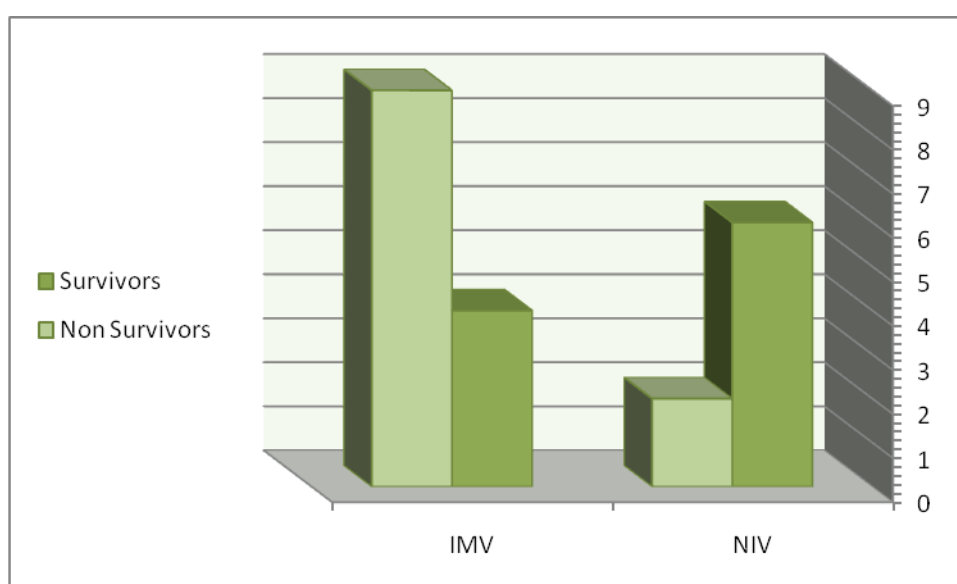


Figure (9): Comparison between the two studied groups as regard Outcome of ventilatory support (NIV and IMV).