Results

Table (1): Description of the studied sample according to gender, age and duration of stay

Variable	No (N= 145)	% (100.0)
Gender		
Male	73	50.3
Female	72	49.7
Age		
Mean ± SD(in months)	18.3 ± 20.8	
Median	10 months	
Range	1 m. - 12 ys.	
Inter quartile range (in months)*	5.25 m. - 24 m.	
Duration of stay		
Mean ± SD(in days)	7.5 ± 6.1	
Median	6 days	
Range	1 d. – 6 weeks	
Inter quartile range (in days)*		

This table shows that the study was done on 145 cases of pediatrics 73(50.3%) were males and 72 (49.7%) were females.

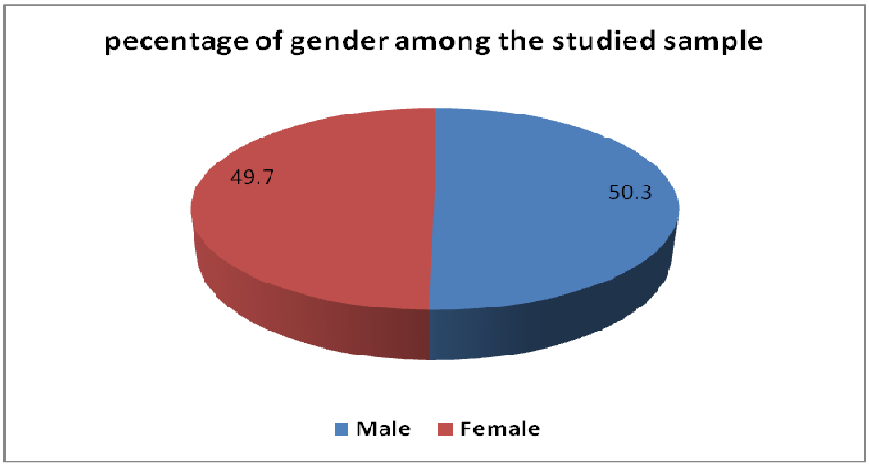


Fig (1) Percentage of gender among the studied sample

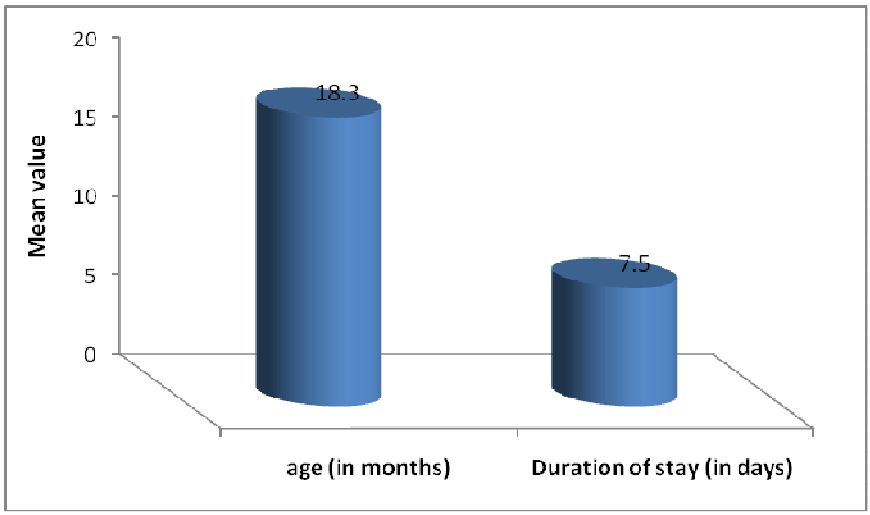


Fig (2) Age (in months) and Duration of stay (in days) among the studied sample

Table (2): Incidence of organ failure among the studied sample and description of this group.

Variable	**No (N= 145)**	**% (100.0)**
Incidence of organ failure	25	17.2
Description of group with organ failure	**No (N= 25)**	**% (100.0)**
Gender Male Female	 10 15	 40.0 60.0
Age Mean ± SD(in months) Median Range Inter quartile range (in months)*	 17.5 ± 19.5 9 m. 1.5 m. – 6 ys. 2.5 -27	
Duration of stay Mean ± SD(in days) Median Range Inter quartile range (in days)*	 12.5 ± 12.4 10 m. 1 m.- 6 w 2.5 – 14	

This table shows Incidence of organ failure among the studied sample Is17.2%, 40% are males 60% are females, their ages range between1.5month and 6 years their duration of stay range between 1month and 6weeks

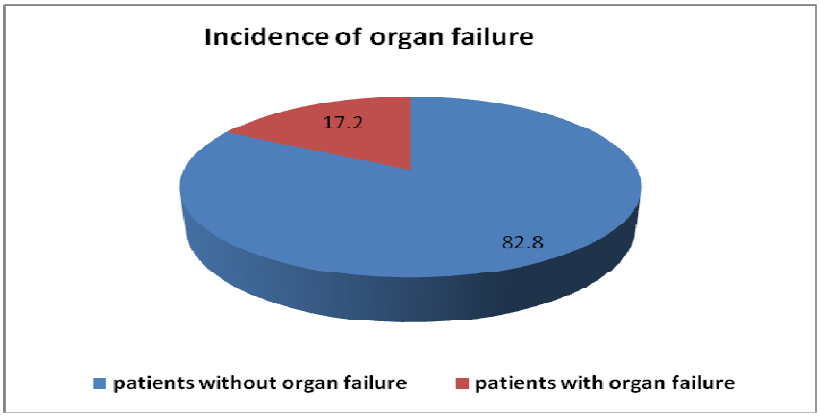


Fig (3) Incidence of organ failure among the studied sample

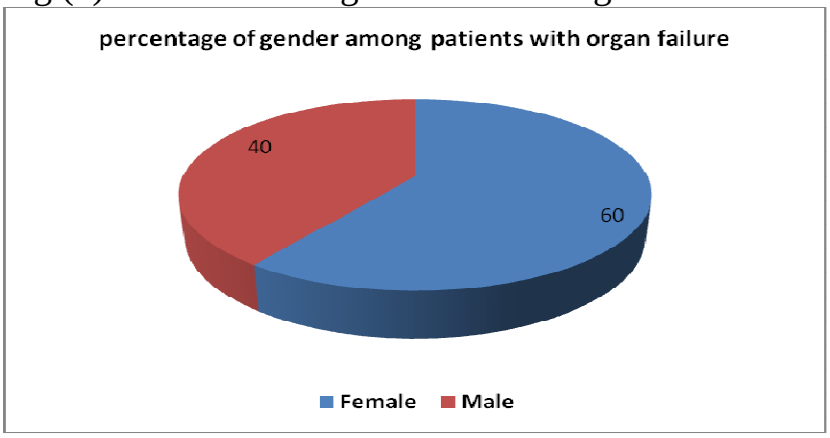


Fig (4) Percentage of gender among patients with organ failure

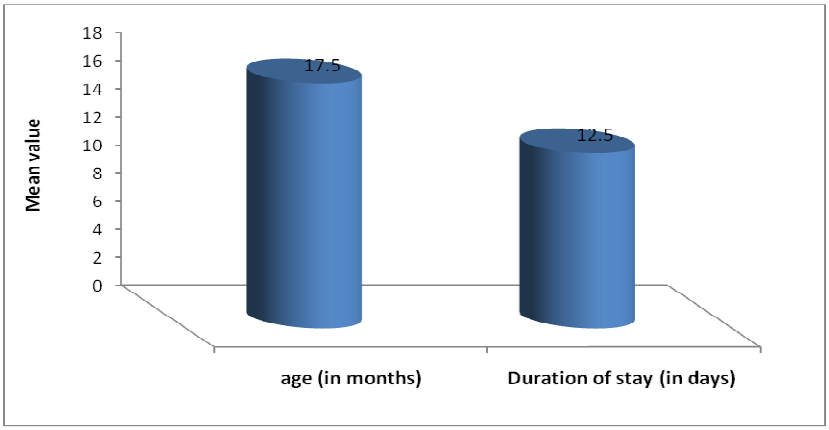


Fig (5) Age (in months) and Duration of stay (in days among patients with organ failure

Table (3): Comparison between the 2 groups regarding age and duration of stay

Group / Variable	With organ failure (N= 25)		Without organ failure (N= 120)		St.“ t”	P
	Mean	**SD**	**Mean**	**SD**		
Age (in months)	17.5	19.5	18.5	21.1	0.23	>0.05
Duration of stay (in days)	12.5	12.4	6.5	2.9	-2.4	<0.05

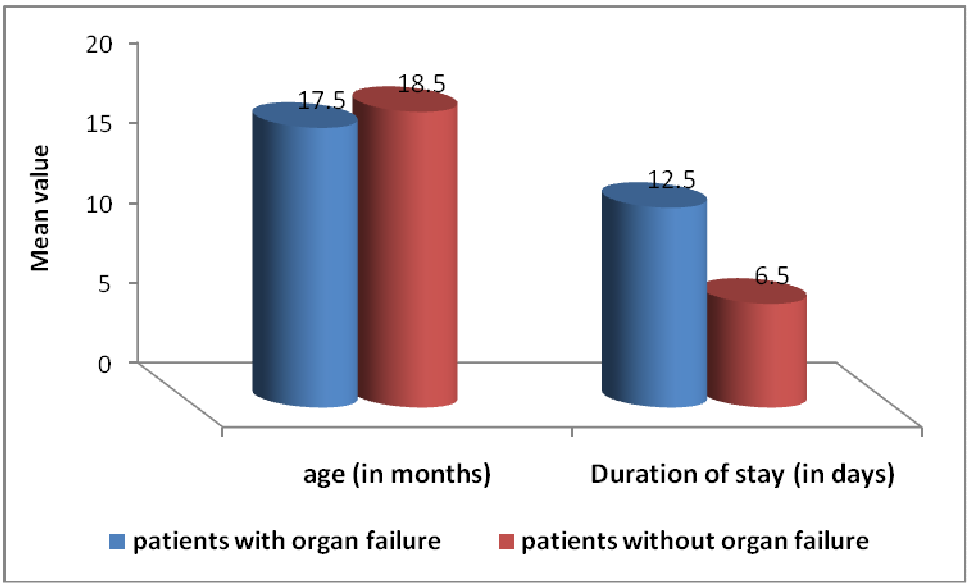


Fig (6) Comparison between the 2 groups regarding age and duration of stay

Clinical & lab findings among the studied group of organ failure.

1- CNS

Table (4): This table shows Incidence of Glasgow Coma Scale < 6 among the studied group of organ failure is 60%

Glasgow Coma Scale <6	No	%
No	10	40.0
Yes	15	60.0
Total	25	100.0

2- CVS

Table (5): This table shows Incidence of HR < normal for age among the studied group of organ failure is 12%

HR < normal for age	No	%
No	22	88.0
Yes	3	12.0
Total	25	100.0

Table (6): This table shows Incidence of Mean Blood Pressure < normal for age among the studied group of organ failure is 16%

MBP < NFA	No	%
No	21	84.0
Yes	4	16.0
Total	25	100.0

Table (7): This table shows Incidence of Ventricular tachycardia and Fibrillation among the studied group of organ failure is 0%

VT or VF	No	%
no	25	100.0
Yes	0	0.0
Total	25	100.0

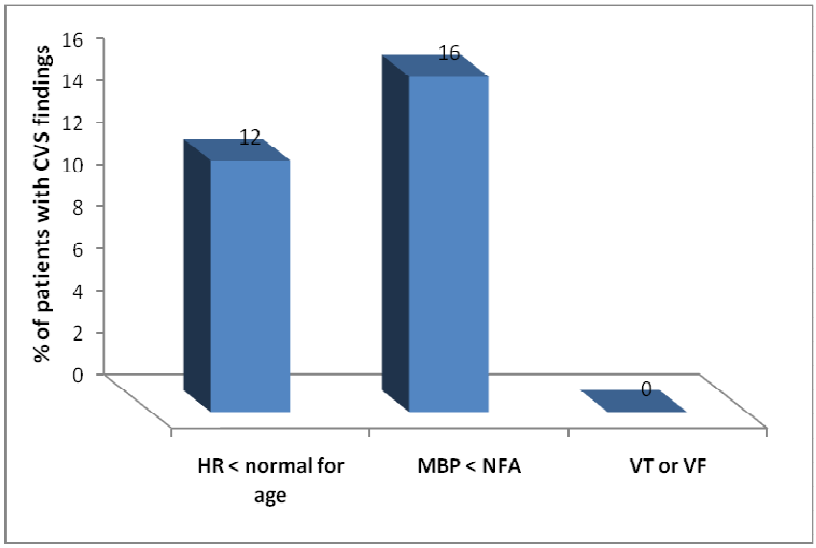


Fig (7) Percentage of patients with CVS finding among the studied group of organ failure.

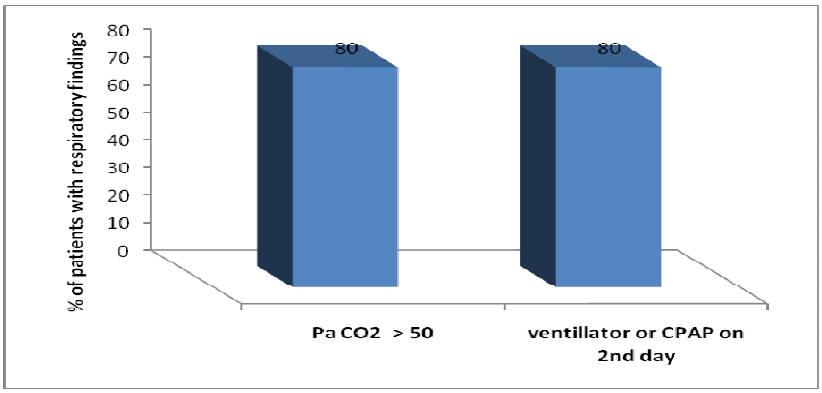
3- Respiratory system

Table (8): This table shows Incidence of Pa CO_2 > 50 among the studied group of organ failure is 80%

Pa CO_2 > 50	**No**	**%**
No	5	20.0
Yes	20	80.0
Total	25	100.0

Table (9): This table shows Incidence of dependency on ventilator or CPAP on 2nd day among the studied group of organ failure is 20%

ventilator or CPAP on 2nd day	**No**	**%**
No	5	20.0
Yes	20	80.0
Total	25	100.0



Fig(8) Percentage of patients with respiratory findings among the studied group of organ failure.

4- Liver

Table (10): This table shows 16% of the studied group of organ failure have Bilirubin >6

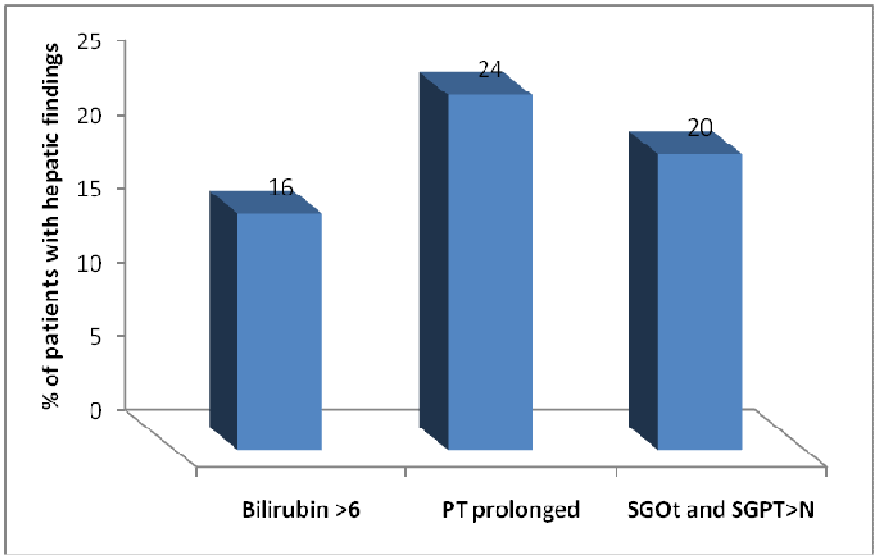
Bilirubin >6	No	%
No	21	84.0
Yes	4	16.0
Total	25	100.0

Table (11): This table shows PT prolonged in 24% of the studied group of organ failure

PT prolonged	No	%
No	19	76.0
Yes	6	24.0
Total	25	100.0

Table (12): This table shows Incidence of elevated liver function among the studied group of organ failure is 20%

SGOT and SGPT>N	No	%
No	20	80.0
Yes	5	20.0
Total	25	100.0



Fig(9) Percentage of patients with hepatic findings among the studied group of organ failure.

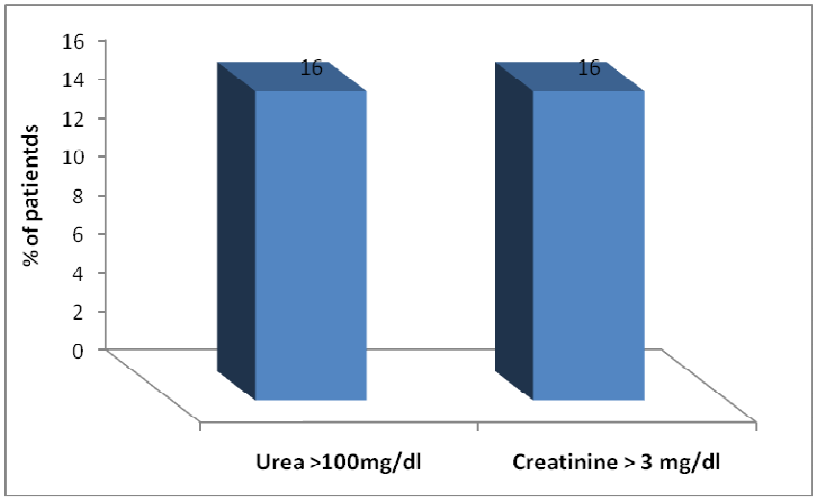
5- Renal

Table (13): This table shows that 16% of studied group of organ failure had elevated urea >100mg/dl

Urea >100mg/dl	No	%
No	21	84.0
Yes	4	16.0
Total	25	100.0

Table (14): This table shows Incidence of Creatinine > 3 mg/dl among the studied group of organ failure is 16%

Creatinine > 3 mg/dl	No	%
No	21	84.0
Yes	4	16.0
Total	25	100.0



Fig(10) Percentage of patients with renal findings among the studied group of organ failure.

6- Hematology

Table (15): This table shows that no patients among the studied group of organ failure had WBCs <1000

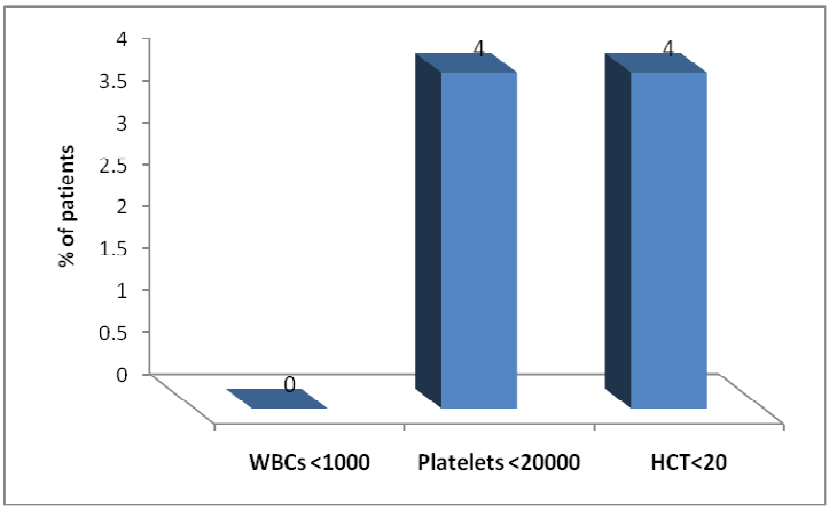
WBCs <1000	No	%
No	25	100.0
Yes	0	0.0
Total	25	100.0

Table (16): This table shows Incidence of Platelets <20000 among the studied group of organ failure is 4%

Platelets <20000	No	%
No	24	96.0
Yes	1	4.0
Total	25	100.0

Table (17): This table shows Incidence of **HCT<20** among the studied group of organ failure was 4%

HCT<20	No	%
No	24	96.0
Yes	1	4.0
Total	25	100.0

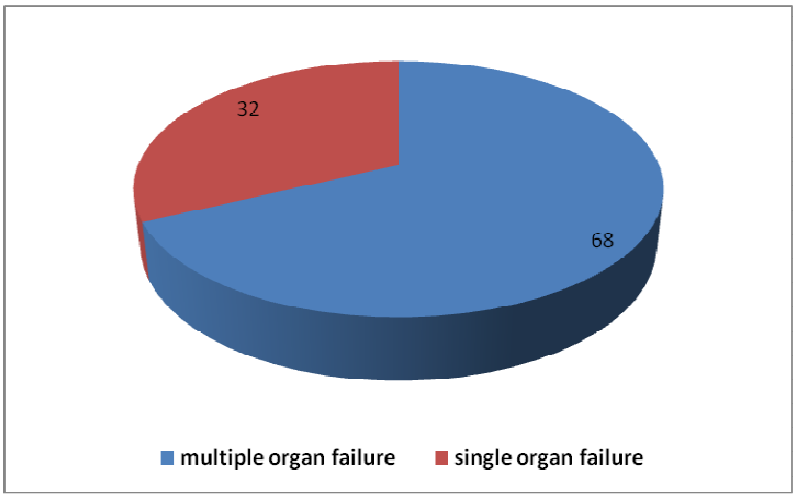


Fig(11) Percentage of patients with hematological findings among the studied group of organ failure.

Table (18): Distribution of the patients with organ failure according to Single or multiple organ failure

Organ failure	No	%	Z	P
single organ failure	8	32.0	3.7	<0.001
Multiple organ failure	17	68.0		
Total	25	100.0		

This table shows 32% among the studied group of organ failure had single organ failure and 68% had multiple organ failure

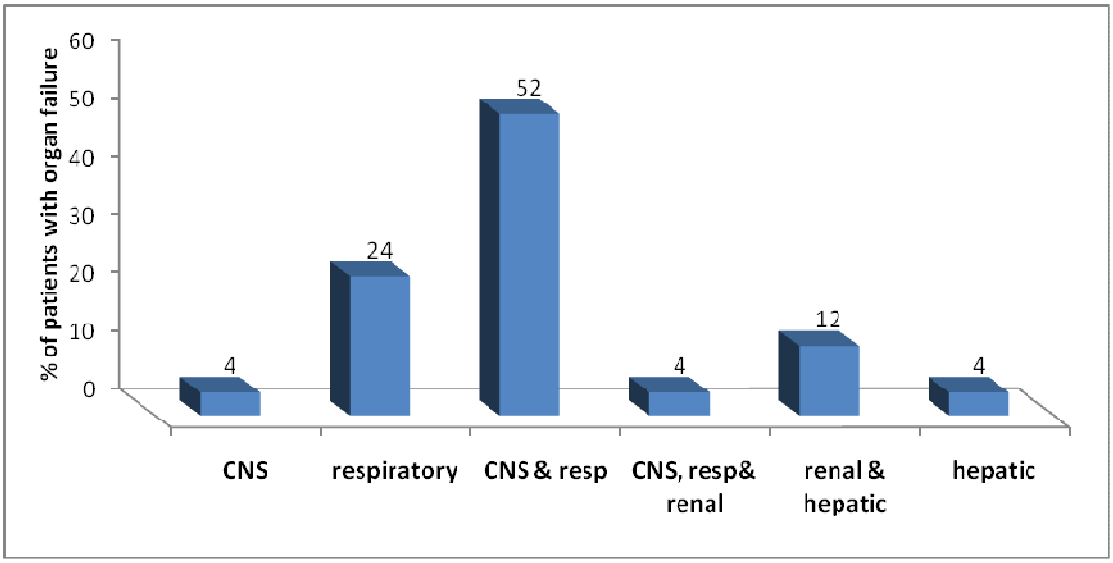


Fig(12) Percentage of patients with multiple organ failure and those with single organ failure among the studied group of organ failure.

Table (19): Distribution of the group with organ failure according to the failed organ

The failed organ	No	%
CNS	1	4.0
Respiratory	6	24.0
CNS & resp	13	52.0
CNS, resp& renal	1	4.0
renal & hepatic	3	12.0
Hepatic	1	4.0
Total	25	100.0

This table shows CNS & resp failure represent 52%of studied group with organ failure

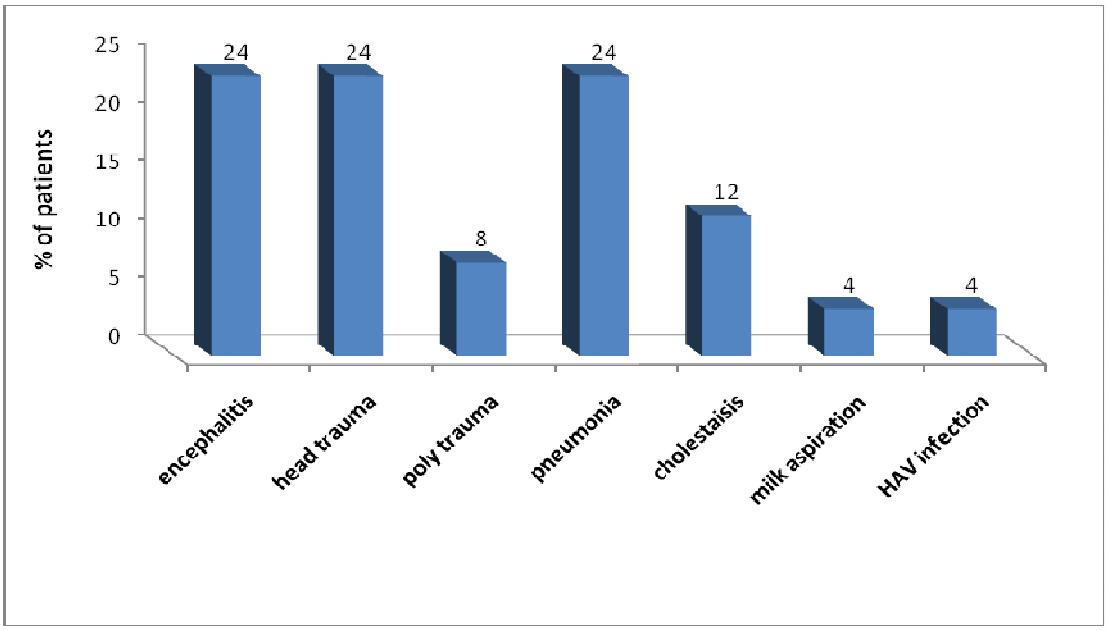


Fig(13)Distribution of the patients with organ failure according to the failed organ.

Table (20): Distribution of the patients with organ failure according to diagnosis

Diagnosis	No	%
encephalitis	6	24.0
head trauma	6	24.0
poly trauma	2	8.0
Pneumonia	6	24.0
cholestasis	3	12.0
milk aspiration	1	4.0
HAV infection	1	4.0
Total	25	100.0

This table shows that encephalitis , head trauma and Pneumonia were the most common causes of MOFS among the group with organ failure

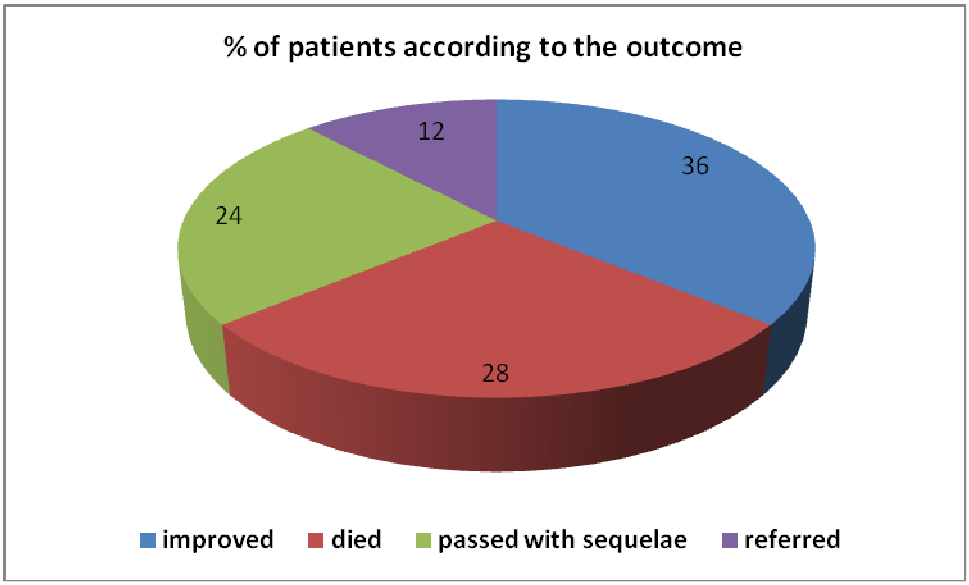


Fig(14)Distribution of the group with organ failure according to diagnosis.

Table (21): Distribution of the patients with organ failure according to outcome

Outcome	Frequency	Valid Percent
Improved	9	36.0
passed with sequelae	6	24.0
Referred	3	12.0
Died	7	28.0
Total	25	100.0

This table shows Incidence of death among the studied group with organ failure is 28% , 36% improved and 24% passed with sequelae

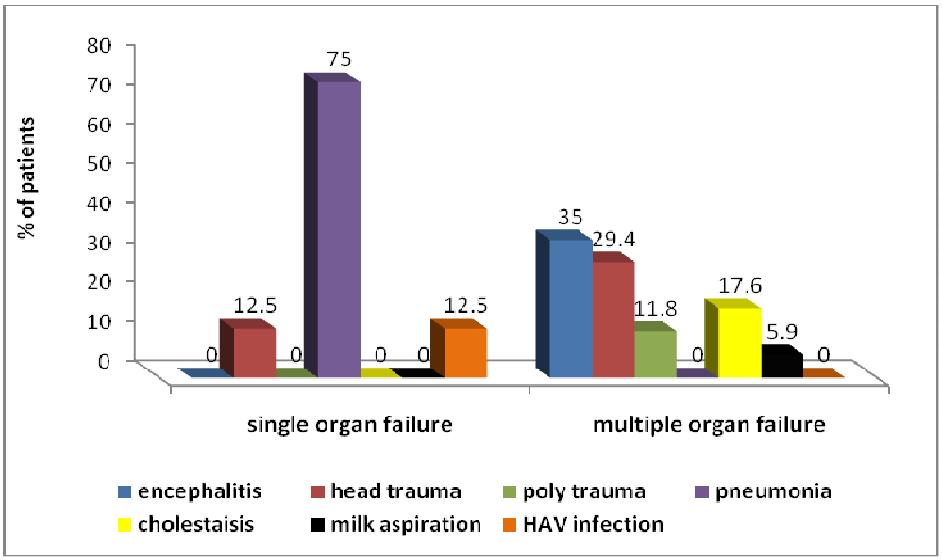


Fig(15)Distribution of the group with organ failure according to outcome

Table (22): Comparison between diagnosis and organ failure

Diagnosis			Organ failure		Z	P
			single organ failure (n=8)	multiple organ failure (N=17)		
	encephalitis	Count	0	6	-1.93	0.054
		% within organfailure	.0%	35.3%		>0.05
	head trauma	Count	1	5	-0.92	>0.05
		% within organfailure	12.5%	29.4%		
	poly trauma	Count	0	2	-1.01	>0.05
		% within organfailure	.0%	11.8%		
	pneumonia	Count	6	0	4.1	<0.001
		% within organfailure	75.0%	.0%		
	cholestasis	Count	0	3	-1.26	>0.05
		% within organfailure	.0%	17.6%		
	milk aspiration	Count	0	1	-0.7	>0.05
		% within organfailure	.0%	5.9%		
	HAV infection	Count	1	0	1.49	>0.05
		% within organfailure	12.5%	.0%		
Total		Count	8	17		
		% within organfailure	100.0%	100.0%		

This table shows that pneumonia was the main cause of single organ failure and encephalitis was the main cause of MOFS.



Fig(16)Comparison between diagnosis and organ failure

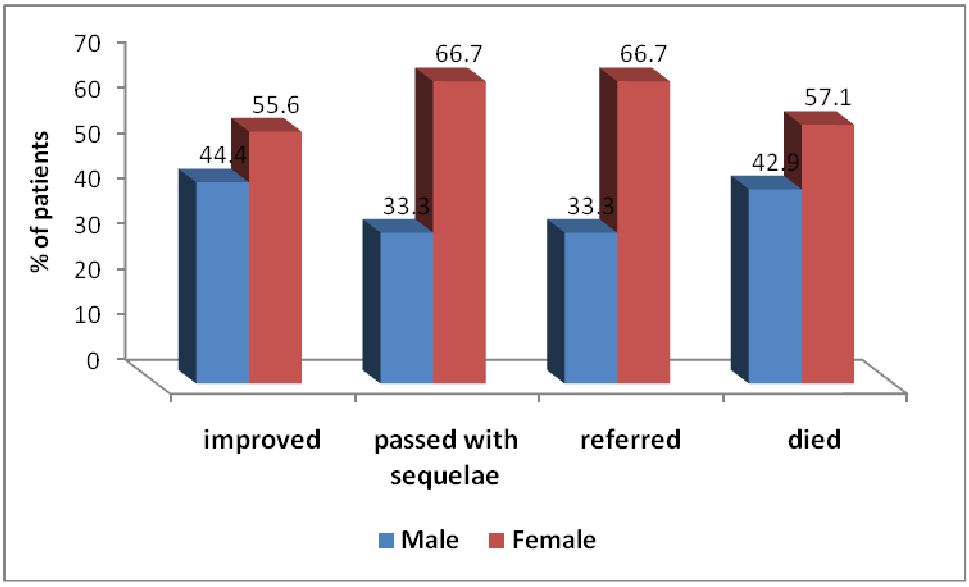
Table (23): Comparison between gender and outcome

Gender			Outcome				
			Improved	passed with sequelae	referred	died	Total
	Male	Count	4	2	1	3	10
		% within outcome	44.4%	33.3%	33.3%	42.9%	40.0%
	Female	Count	5	4	2	4	15
		% within outcome	55.6%	66.7%	66.7%	57.1%	60.0%
Total		Count	9	6	3	7	25
		% within outcome	100.0%	100.0%	100.0%	100.0%	100.0%

Adjusted X^2= 0.27

P>0.05

This table shows Incidence of death among the studied group with organ failure was higher in females (57.1%) Than in males(42.9%).

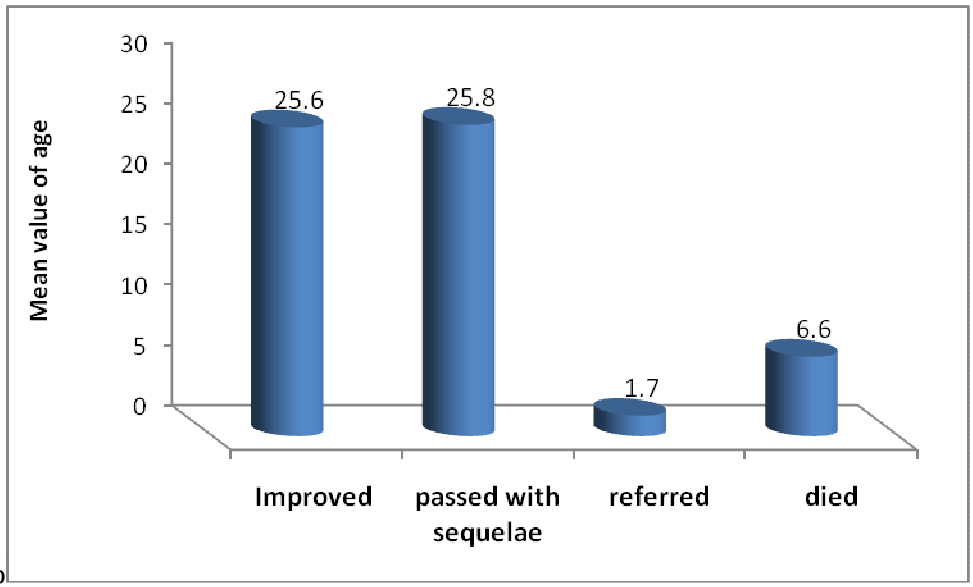


Fig(17)Comparison between gender and outcome

Table (24): Comparison between age and outcome

Outcome	Age (in months)					F	P
	N	Mean	Std. Deviation	Minimum	Maximum		
Improved	9	25.6	19.6	3.00	60.00	2.7	0.069 (>0.05)
passed with sequelae	6	25.8	25.5	4.00	72.00		
Referred	3	1.7	.29	1.50	2.00		
Died	7	6.6	6.06	1.50	18.00		
Total	25	17.5	19.5	1.50	72.00		

This table shows Incidence of death among the studied group with organ failure was high in small ages .



80%

Fig(18)Comparison between age and outcome

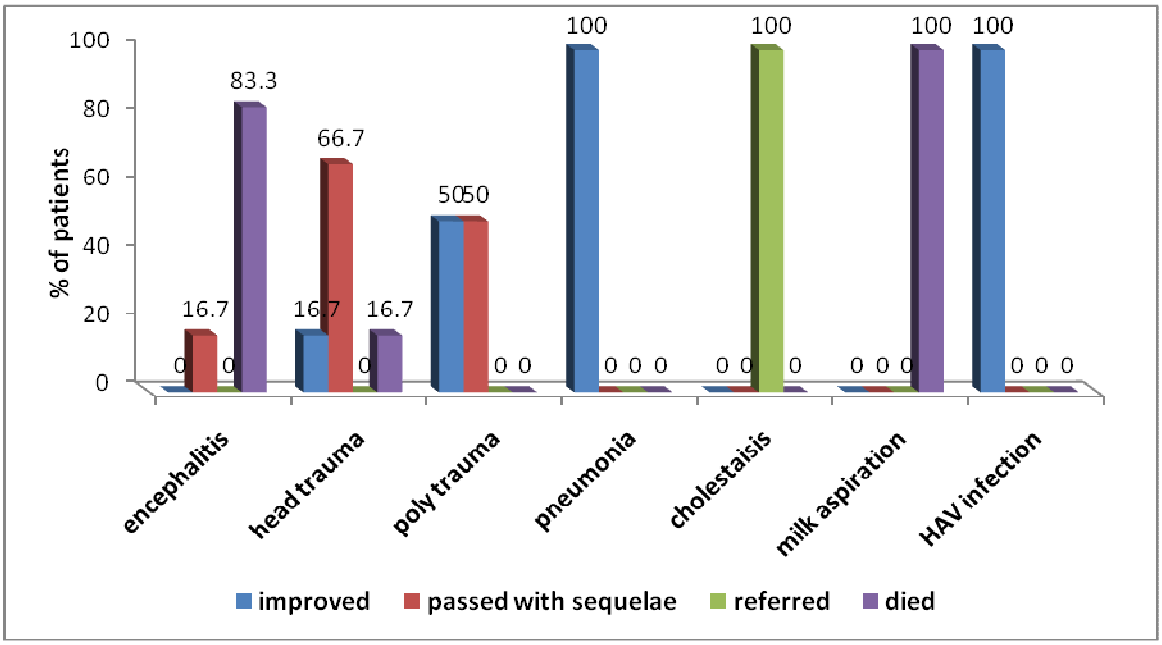
Table (25): Comparison between diagnosis and outcome

Diagnosis			Outcome				
			improved	passed with sequelae	referred	died	Total
	Encephalitis	Count	0	1	0	5	6
		% within diagnosis	.0%	16.7%	.0%	83.3%	100.0%
	head trauma	Count	1	4	0	1	6
		% within diagnosis	16.7%	66.7%	.0%	16.7%	100.0%
	poly trauma	Count	1	1	0	0	2
		% within diagnosis	50.0%	50.0%	.0%	.0%	100.0%
	Pneumonia	Count	6	0	0	0	6
		% within diagnosis	100.0%	.0%	.0%	.0%	100.0%
	Cholestaisis	Count	0	0	3	0	3
		% within diagnosis	.0%	.0%	100.0%	.0%	100.0%
	Milk aspiration	Count	0	0	0	1	1
		% within diagnosis	.0%	.0%	.0%	100.0%	100.0%
	HAV infection	Count	1	0	0	0	1
		% within diagnosis	100.0%	.0%	.0%	.0%	100.0%
Total		Count	9	6	3	7	25
		% within diagnosis	36.0%	24.0%	12.0%	28.0%	100.0%

Adjusted X^2= 54.2

P<0.001

This table shows Incidence of death among the studied group with organ failure was 100% in milk aspiration , 83.3% in encephalitis , 16.7% in head trauma.



Fig(19) comparison between diagnosis and outcome