RESULTS

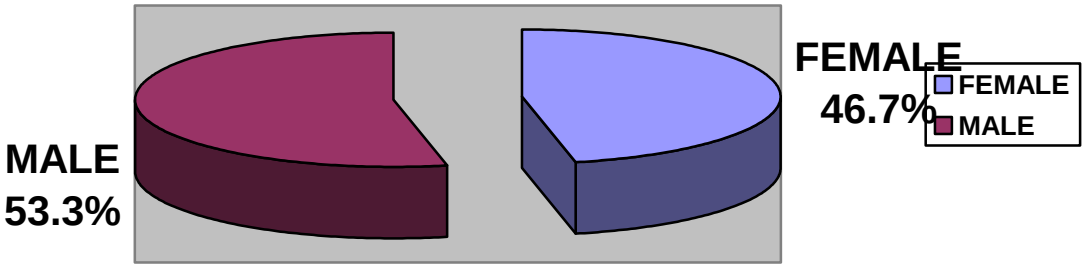
The results of the present study were summarized in the following tables and figures.

Table (6): Comparison between Cases and Control as regards sex

	Cases		Control		Total		X^2	p
	No.	%	No.	%	No.	%		
Female	30	50%	14	46.7%	42	46.7%	0.1	>0.05
Male	30	50%	16	53.3%	48	53.3%		
Total	60	100.0%	30	100.0%	90	100.0%		

This table shows that there is no significant difference in M/F ratio between cases & control group.

Fig(8) : Sex distribution of study and control group



This figure shows that there is no significant difference between cases and control group regardin sex

Table (7): Comparison between cases and control as regards Age , weight , gestational age

	GROUP	N	Mean	Std. Deviation	t	p
AGE (days)	CASES	60	5.8000	1.83007	0.2	>0.05
	CONTROL	30	5.7333	1.63861		
Wt. (k.g)	Cases	60	2.9680	.27032	1.2	>0.05
	Control	30	2.9003	.23250		
G.A (weeks)	CASES	60	39.00	.823	1.5	>0.05
	CONTROL	30	38.73	.785		

This tabe shows that both cases & control group are matching regarding (age , birth weight , gestational age)

Table (8): Comparison of the major hematologiacal parameters of complete blood picture between cases and control

	Group	N	Mean	Std. Deviation	t	p
HB (gm/dl)	Cases	60	14.6967	2.30974	0.04	>0.05
	Control	30	14.6767	1.88509		
PLT (k/ul)	Cases	60	311.5667	94.93144	0.2	>0.05
	control	30	316.5667	82.75668		
TLC (k/ul)	Cases	60	7.5700	2.05008	0.6	>0.05
	Control	30	7.8367	1.77385		

This table shows that regarding CBC values (HB% , PLT , TLC) , there is no significant difference between cases & control group.

Table(9): Comparison of the total and direct levels of serum bilirubin between cases of neonatal jaundice versus control

	Group	N	Mean	Std. Deviation	t	p
TSB mg/dl	Cases	60	21.9917	4.99255	28.4	<0.001
	Control	30	2.8067	1.10358		
DSB mg/dl	Cases	60	.7890	0.44738	5.7	<0.001
	Control	30	.4250	0.15204		

This table shows highly significant values, as TSB is elevated in cases group in comparison with control group.

Table (10): Comparison between cases and control group as regards reticulocytic count (Retics)

	Group	N	Mean	Std. Deviation	t	p
Retics	Cases	60	5.49	3.322	9.1	<0.001
	Control	30	1.50	.509		

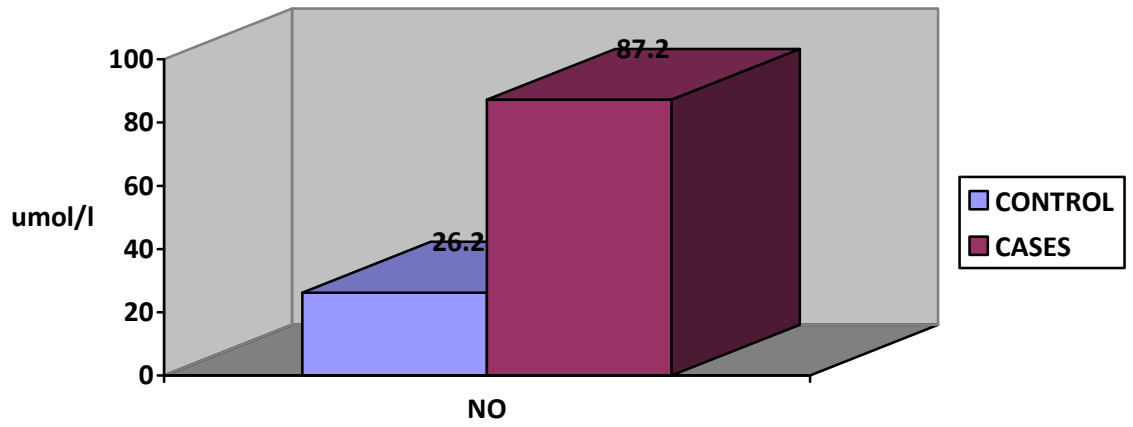
This table shows that both cases and control group have low reiculocytic count (no hemolysis)

Table (11): Comparison between cases and control as regards (nitric oxide) NO

	Group	N	Mean	Std. Deviation	t	p
NO µmol/l	Cases	60	87.2067	6.95401	39.6	<0.001
	Control	30	26.2200	6.72394		

This table shows high significance regarding (NO), as it is elevated in cases group in comparison with control group.

Fig(9) : comparison between cases and control as regards NO



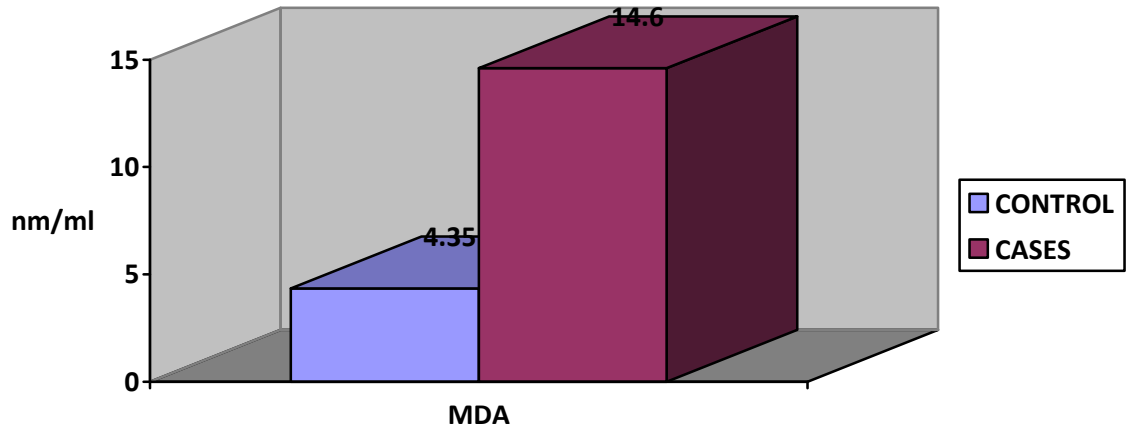
This figure shows that jaundiced newborns have higher mean of NO level than control group

Table (12): Comparison between cases and control as regards (malondialdehyde) MDA

	Group	N	Mean	Std. Deviation	t	p
MDA nm/ml	Cases	60	14.6200	2.86278	24.6	<0.001
	Control	30	4.3500	1.06439		

This table shows high significance regarding (MDA) , as it is elevated in cases group in comparison with control group

Fig(10) : comparison between cases and control as regards MDA(malondialdehyde)



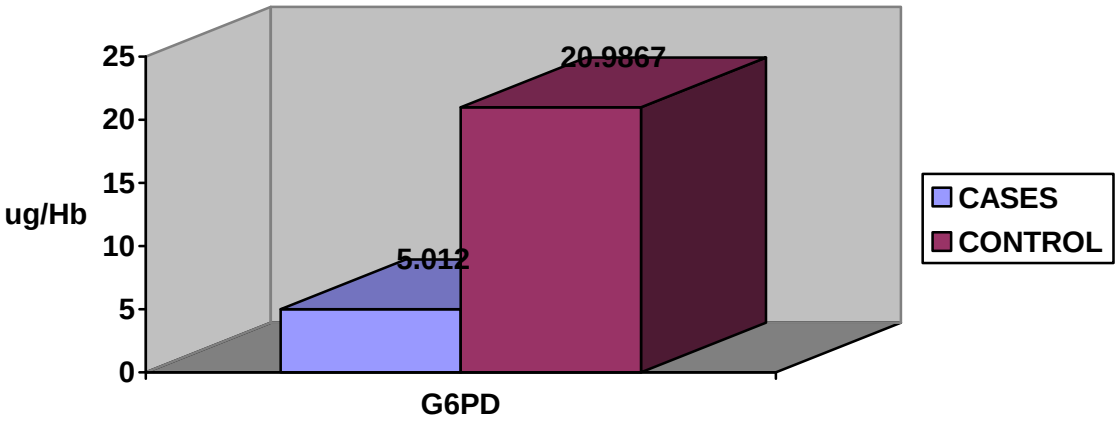
This figure shows that jaundiced newborns have higher mean of MDA level than control group

Table (13): Comparison between cases and control as regards (glucose 6 phosphate dehydrogenase) G6PD

	Group	N	Mean	Std. Deviation	t	p
G6PD ug/Hb	Cases	60	5.0120	4.24096	14.1	<0.001
	Control	30	20.9867	5.40872		

This table shows highly significance regarding (G6PD), as it is decreased in cases group in comparison with control group.

Fig(11) : Comparison between cases and control as regards G6PD



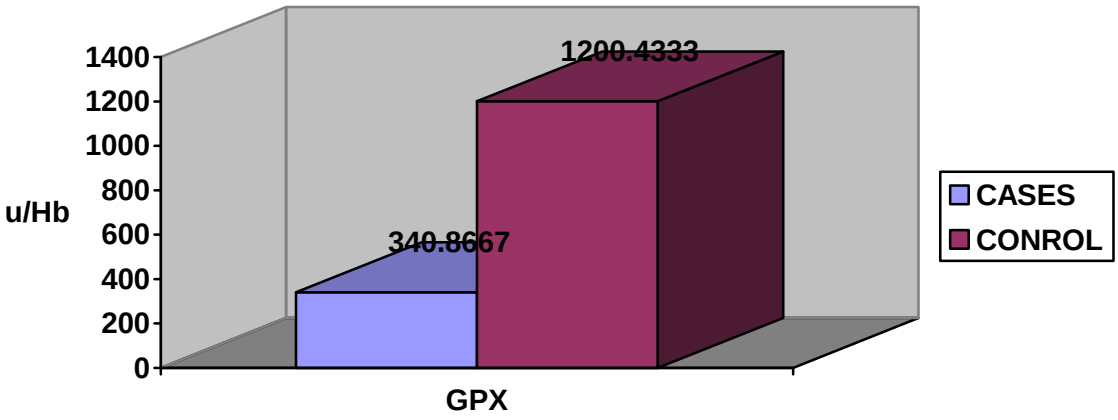
This figure shows that jaundiced newborns have lower mean of G6PD than control group

Table (14): Comparison between cases and control as regards GPx(glutathione peroxidase)

	Group	N	Mean	Std. Deviation	t	p
GPx u/Hb	Cases	60	340.8667	243.23257	17.1	<0.001
	Control	30	1200.4333	183.04657		

This table shows highly significance regarding (GPX) , as it is decreased in cases group in comparison with control group

Fig(12) : Comparison between cases and control as regards GPx



This figure shows that jaundiced newborns have lower mean of GPx than control group

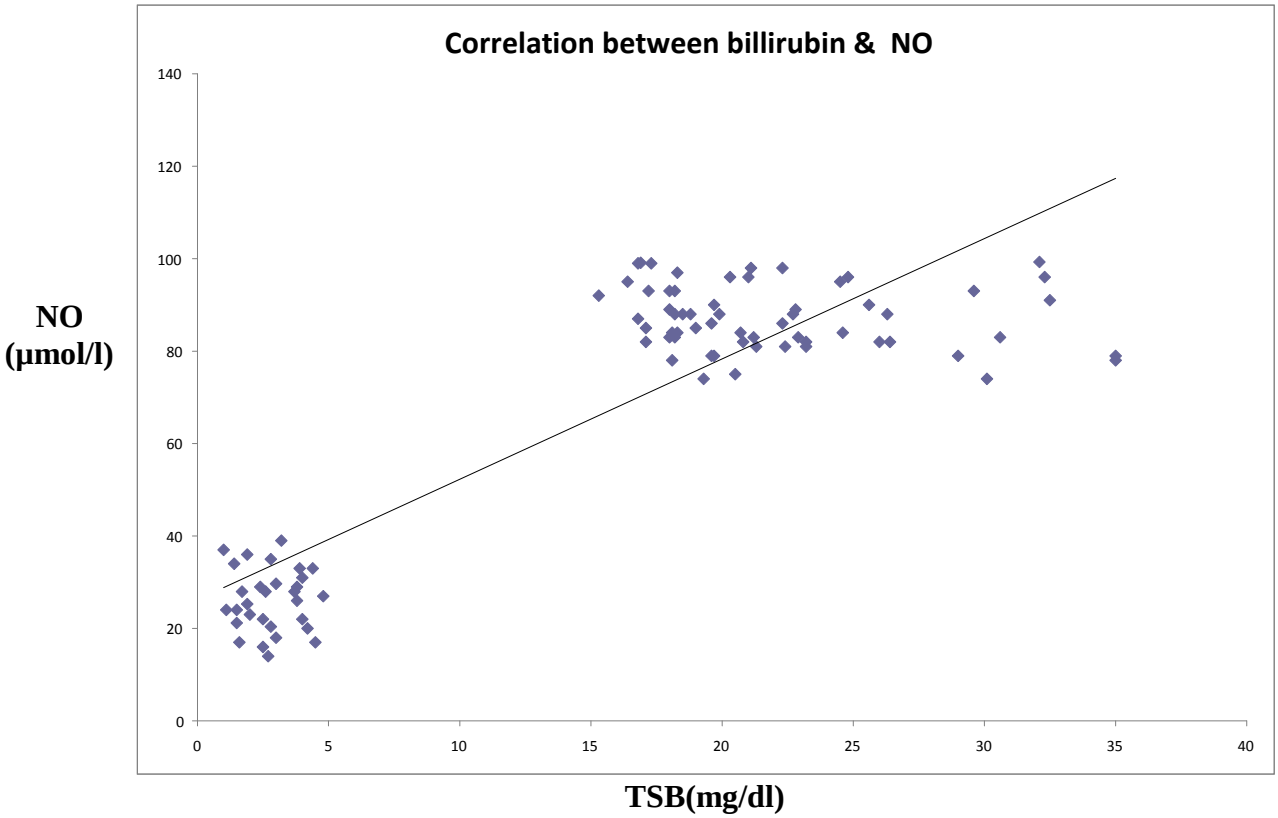
Table (15): Correlation between total serum billirubin & GPX, G6PD, NO & MDA

	TSB(md/dl)	
	r	**p**
NO(µmol/l)	0.88	<0.001
MDA(nm/ml)	0.84	<0.001
G6PD(ug/Hb)	-0.76	<0.001
GPX (u/Hb)	-0.81	<0.001

p>0.05= non significant
p<0.05 = significant

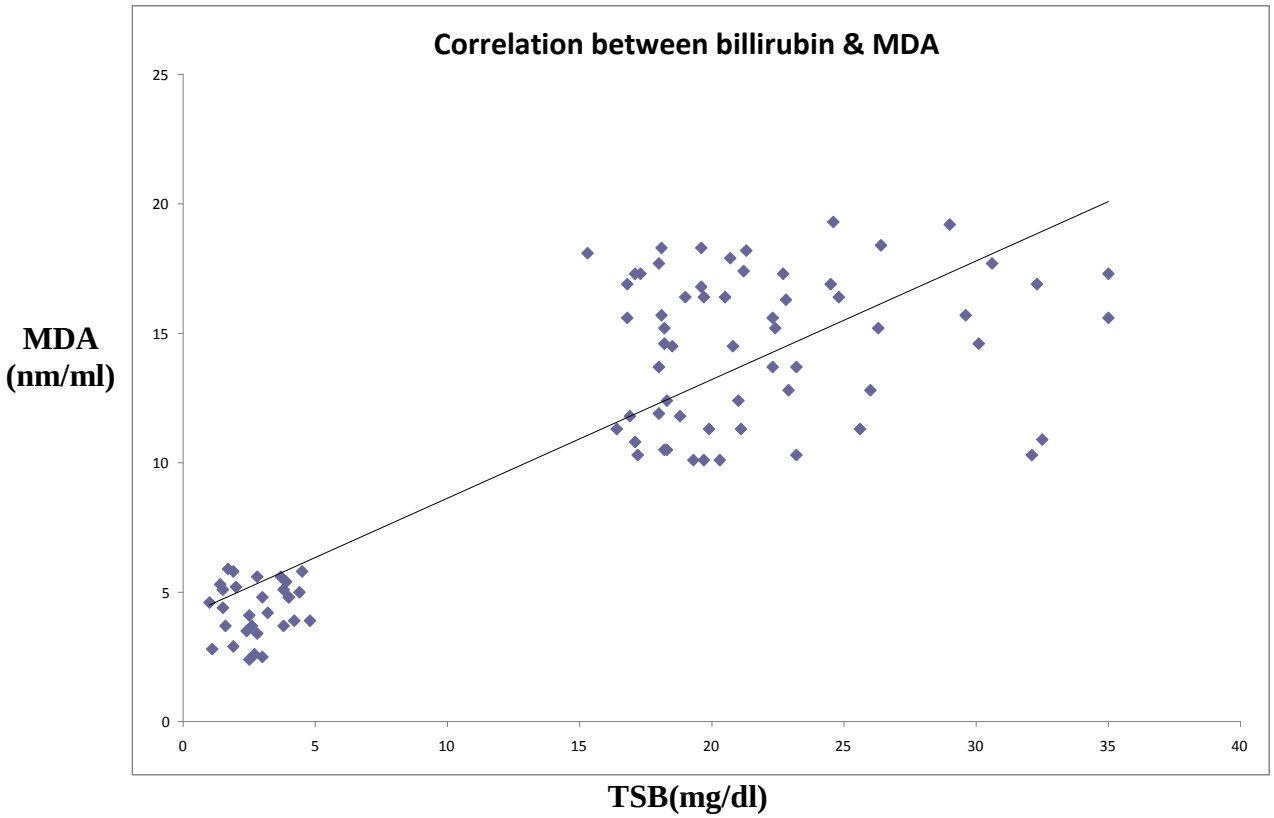
This table summarize the results of this study , showing that when TSB is elevated : 1) both NO & MDA are elevated
2) both G6PD& GPX are decreased

Fig(13): Correlation between bilirubin level and NO



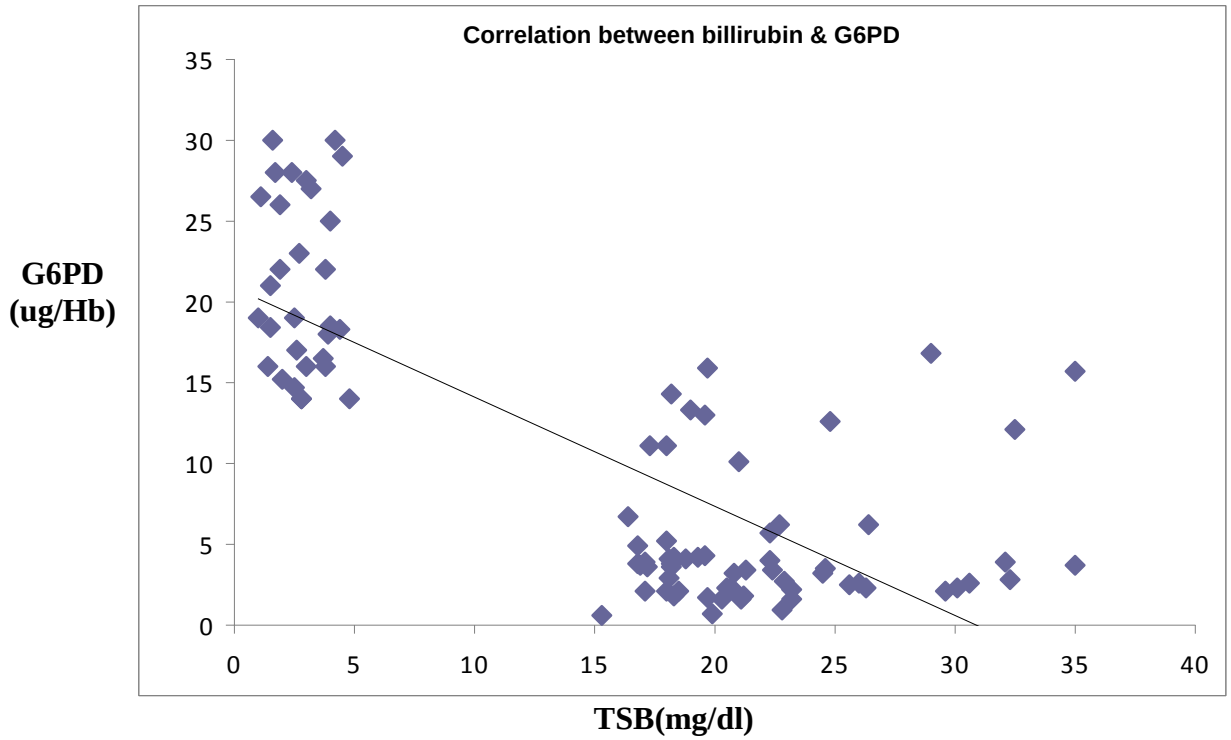
This figure shows a positive correlation between TSB level and level of NO in jaundiced neonates

Fig(14): Correlation between total serum bilirubin level and MDA



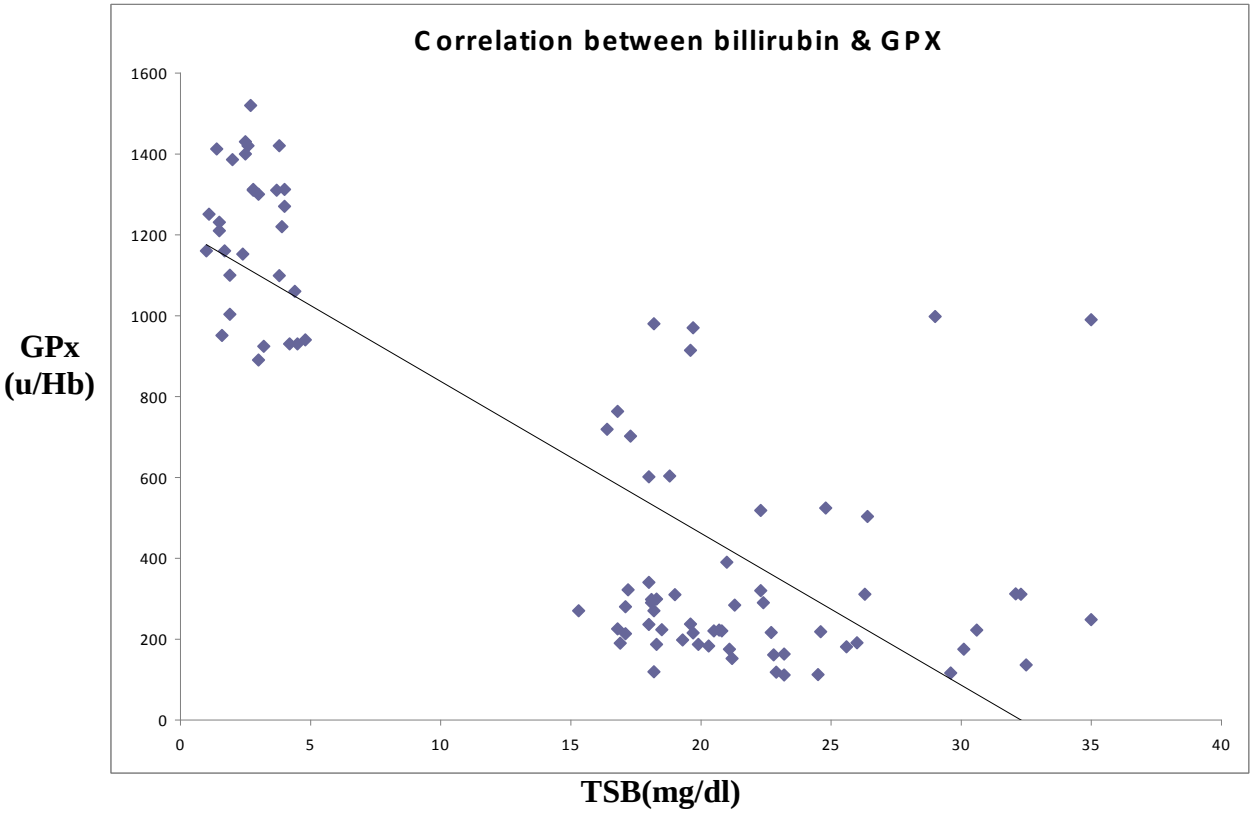
This figure shows a positive correlation between TSB level and level of MDA in jaundiced neonates.

Fig(15): Correlation between bilirubin level and G6PD



This figure shows a negative correlation between TSB level and level of G6PD in jaundiced neonates

Fig(16): Correlation between bilirubin level and GPx



This figure shows a negative correlation between TSB level and level of GPx in jaundiced neonates