

RESULTS OF THE STUDY

Nitro-Blue Tetrazolium Test in Control Group.

NO	Age Y	Hb Conc.	S.iron	T.I.B.C.	S.albumin	T.L.C.	Neutrophil %	Neutroph /mm ²	Direct N.B.T %	+ve cells Absolute
1	4	12.5	35	320	4.2	6500	55	3575	3.49	125
2	5	13	45	280	3.8	8000	56	4480	7.81	350
3	9	12.5	57	260	4.5	5500	60	3300	6.21	205
4	3	15	60	380	5	9700	45	4365	10.30	450
5	6	14.5	80	350	4	8200	50	4100	9.26	380
Mean		13.5	48	318	4.3	7580	53			302
SDM		1.17	22.47	49.19	0.46	1623	5.8			133
SEM		0.52	10.08	22.05	0.21	728	2.6			59.75

NITRO-BLUE TETRAZOLIUM IN DISEASED GROUP

NO.	Y	Age M	Hb conc. gm/	S.iron	T.I.B.C.	S.albumin	T.L.C.	Neutroph %	Neutroph./mm ³	Direct NBT %	+ve cells Absolute
1	2	-	8	34 ug/dl	480	3.8	10.000	50	5000	1.5	70
2	2	-	6.5	23	410	3.3	10.500	45	4725	1.3	64
3	3	-	8	23	407	3.8	9.500	55	5525	1.2	55
4	3	6	6.5	21	420	4.3	10.500	45	4725	1.25	60
5	4	-	6.5	3.4	470	4.3	1.500	45	4725	1.3	65
6	5	-	6.5	21	550	3.3	4.000	55	4950	1.24	58
7	6	-	9.5	23	480	3.8	10.000	50	5000	1.25	60
8	6	-	8	34	550	4.3	9.500	55	5525	1.5	70
9	8	-	6.5	24	550	4.3	10.000	55	5500	1.3	67

Mean	8	34	480	3.8	10.000	4500	63
SDM	1.5	14	70	0.5	500	500	5.3
SEM	0.5	4.66	23.33	0.766	160	166	1.76
t	7.62	0.09	5.04	1.86	0.75	--	3.19
P	0.001	N.S.	.001	N.S.	N.S.		0.001

Phagocytosis of Candida Particles in Control Group

No.	Age Y	Hb	S.I. ug/dl	Total I.Bc.	S.Alb	T.L.	Neutrophil %	No. of Neutro Containing/Candida	Neutr. / cm ³	Percentage of of phagocyte
1	4	12.5	35	320	4.2	6500	55	3000	3575	83.9
2	5	13	45	280	3.8	8000	56	3600	4480	80.35
3	9	12.5	57	260	4.5	5500	60	2200	3300	66.66
4	3	15	60	380	5	4700	45	3800	4365	87.05
5	6	14.5	80	350	4	8200	50	4000	4100	97.56

Mean

SDM

SEM

3320

729

327

82

11.28

5.05

PHAGOCYTOSIS OF CANDIDA IN DISEASED GROUP

No.	Y	Age	Hb conc.	S.iron	T.I.B.C.	S.albumin	T.L.C./Neutr %	Neutroph. /mm ³	No. of neutro-ph. containing candida	No of whole Neutro/cm ³	% of phagocyte (p)
1	2	-	8	34 ug/dl	480	3.8	10.000	500	3000	4500	66.6
2	2	-	65	23	410	3.3	10.500	4725	1200	4000	55
3	3	-	8	23	407	3.8	9.500	5525	1000	5000	40
4	3	6	6.5	420	4.3	10.500	45	1300	4000	57.5	
5	4	-	6.5	34	470	4.3	10.500	4725	2500	4500	55.55
6	5	-	6.5	21	550	3.3	4.000	4950	3000	5000	60
7	6	-	9.5	23	480	3.8	10.000	5000	2600	4000	65
8	6	-	8	34	550	4.3	9.500	5525	3200	5000	64
9	8	-	6.5	24	550	4.3	10.000	5500	2400	4500	53.33
Mean									2466		57
SDM									650		8.02
SEM									216		2.67
t									2.179		4.37
P									0.05		0.001

Statistical Analysis

The following equations were used in the statistical analysis of all results of the pathologic and control group.

1) Mean ($M = \bar{X}$) =
$$\frac{\sum X}{n}$$

$$= \frac{\text{Sum of the readings of the samples}}{\text{Number of the samples}}$$

2) Standard deviation of the mean (SDM):
$$\frac{\sum X^2 - n \bar{X}^2}{n-1}$$

$\sum X^2$ = sum of the square of the readings of the individual samples.

$$\bar{X}^2 = \text{Square of the mean.}$$

$$n = \text{Number of cases.}$$

3) Standard error of the mean (SEM) =
$$\frac{SDM}{\sqrt{n}}$$

4) t (test for equality of mean) =
$$\frac{\bar{X}_1 - \bar{X}_2}{\sqrt{(SEM_1)^2 + (SEM_2)^2}}$$

$$\bar{X}_1 = \text{Mean of the constituents of the first group.}$$

$$\bar{X}_2 = \text{Mean of the constituents of the second group.}$$

$$(SEM_1)^2 + (SEM_2)^2 = \text{Sum of the square of the standard error of the mean of the first and second group.}$$

Comment on the results :

- HB concentration is significantly reduced in patient's group
($P < 0.001$) compared to the control group.
- Though serum iron does not significantly altered, yet T.I.B.C.
is significantly increased in patient's group versus the control
group.
- Direct NBT +ve cells test is highly significantly ($P < 0.001$) de-
creased in pt's group versus the control group.
- Phagocytosis in highly significantly reduced ($P < 0.001$) in pt's
group versus the control group.
- Though total leucocytic count, % of P.M.N. were increased in
iron deficient group than control group, but statistially they were
insignificant.