XII- RESULTS.

RESULTS

Haematological Studies :-

1- Haemoglobin :-

Haemoglobin showed an increase after operation, the mean preoprative value was 10,24 gm. ± 2.5 after 6 weaks from the operation it was 11,04 gm. ± 1. with an increase of 8% (table No 1).

2- R.B.Cs:

The mean preoprative value was 3,305,000 ±9,123 6 weaks after the operation it was 4,320,454 ±4,025. with an increase of 30% (table No 1).

3- Total Leucocytic Count :

The mean preoperative value was 3,357 ±1,002 . 6 weaks after the operation the mean count was 5540 ± 2,237. with an increase of 65%. (table No 3).

4- Eosinophils : (absolute naumber)

The mean value before the operation was 267 ± 199 the mean value after 6 weaks was 110,9 ±82. with a decrease 58% (table No 4).

5- Lymphocytes : (absolute naumber)

The mean preoperative value was 745 ±403. 6 weaks after the operation it was 798 ±447 with an increase of 7% (table No 5).

6- Polymorphes : (absolute naumber)

The mean preoperative value was 2131 ±695 6 weaks after the operation it was 3855 ±1666 with an increase of 80 % (table No 6) .

7- Monocytes :

The mean preoperative value was 72.90 ±58.0
6 weaks after the operation it was 125.7 ±117.
with an increase of 72%.-(table No 7).

8- Platelets :

The mean preoperative value was 173,375 ±2,246
6 weaks after the operation it was 265,454 ±3,460.
with an increase of 53%. (table No 8).

9- Erythrocyte sedimentation rate (E.S.R.).

The mean preoperative value was 38 ±16 in the first hour and 46 ±19 in the second hour, 6 weaks postoperative it was 23 ±12 in the first hour and 33 ±16 in the second hour. with a decrease of 38% in the 1st haur and 28% in the 2nd haur . (table No 9).

10- Plasmaproteins :

The mean total plasma proteins preoperative value was 6,8 ±0.41.
The mean serum albumin preoperative value was 3,8±0.41.
The mean globuline preoperative value was 3 ± 0.33
The mean total plasma proteins postoperative value was 6,7 ±0.53
The mean albumin postoperative value was 4,2 ±0,56
The mean globulin postoperative value was 2,5 ±0,43

- the tatal protein decreased 1,4%.
- the serum albumin increased 10%.
- the serum globulin decreased 16% .

(table No 10).

11- B Lymphocytes :

The mean preoperative value of the B Lymphocytes was 38,6 ± 15,94. Post operative it was 44,8 ± 25,98. with an increase of 16%. (table No 11).

12- Immunoglobulins :

The mean preoperative value of the serum IgG was 1650 ± 340.

The mean preoperative value of the serum IgM was 119,136 ± 84,22.

The mean preoperative value of the serum IgA was 264,35 ± 63,7.

The mean postoperative value of the serum IgG was 1213, ± 490.

The mean postoperative value of the serum IgM was 88,52 ± 46,78.

The mean postoperative value of the serum IgA was 269,37 ± 72,90.

IGg decreased 26% after splenectomy

IGM decreased 25% after splenectomy

IGA increased 1,8% after splenectomy(table No 12,13,14).

13- Histo-pathological Examination :

a- Thickening of the capsule.

b- Presence of Schistosomal granulomas in the portal tracts. These granulomas are composed of ova surrounded by immune cellular reaction composed of lymphocytes, Plasma cells, Eosinophils, Macrophages and giant cells.

c- Angiomatoids and bile duct proliferation in the portal tracts, which are prominent due to fibrosis.

d- 4 cases showed very thick portal tracts with manifisted increase in vascularity (angiomatoid formation), With starting nutritional cirrhosis in the form of loss of lobular architecture.

e- 3 cases showed evidence of chronic active hepatitis with infiltration of the portal tracts by lymphocytes, Piece meal necrosis, rosettes and bridging fibrosis.

Effect of splenectomy on the (Haemoglobin Concentration in grms.).

	Preoperative	postoperative
Maximum	12	12,74
Minimum	8,7	9,75
Mean	10,24	11,04
S.D.	± 2,5	± 1
% Change	↑ 8 %	

(Table No 1)

Effect of splenectomy on the (No of R.B.Cs/Cu.mm)

	Preoperative	Postoperative
Maximun	4,890,000	4,900,000
Minimum	2,000,000	3,800,000
Mean	3,305,000	4,320,454
S.D.	± 9,123	± 4,025
% Change	↑ 30%	

(Table No 2)

Effect of splenectomy on the (Total Leucocytic Count / Cu mm)

	Preoperative	Postoperative
Minimum	2,100	3,000
Maximum	6,250	11,000
Mean	3,357	5,540
S.D.	±1,002	±2,237
% Change.	↑ 65%	

(Table No 3)

Effect of splenectomy on the (No of Eosinophils / Cu mm)

	Preoperative	Postoperative
Minimum	63	30
Maximum	937	400
Mean	267	110,9
S.D.	±199	± 82
% Change.	↓ 58 %	

(Table No 4)

Effect of splenectomy on the (No of Lymphocytes /Cu mm)

	Preoperative	Postoperative
Minimum	252	370
Maximum	1875	1980
Mean	745	798
S.D.	±403,6	±447
% Change.	↑7 %	

(Table No 5)

Effect of splenectomy on the (No of Polymorphes./Cu mm)

	Preoperative	Postoperative
Minimum	1155	1860
Maximum	3600	7920
Mean	2131	3855
S.D.	±695	±1666
% Change.	↑80%	

(Table No 6)

Effect of Splenectomy on the (No of Monocytes /Cu.mm)

	Preoperative	Postoperative
Minimum	0	0
Maximum	240	440
Mean	72,90	125,7
S.D	± 58,0	±117
% Change	↑ 72%	

(Table No 7)

Effect of Splenectomy on the (No of Platelets /Cu.mm)

	Preoperative	Postoperative
Minimum	150,000	220,000
Maximum	252,000	350,000
Mean	173,375	265,454
S.D.	±2,246	± 3,460
% Change	↑ 53 %	

(Table No 8)

Effect of splenectomy on the

(E.S.R. / mm . h)

	Preoperative		Postoperative	
	1st H	2 nd H.	1st H	2 nd
Minimum	5	18	10	5
Maximum	60	85	45	60
Mean	38	46	23	33
S.D.	±16	±19	±12	±16
% Change.	↓38 % in the 1st H.		↓28% in the 2nd H.	

(Table No 9)

Effect of splenectomy on the

(Plasmaproteins in grms)

	Preoperative			Postoperative		
	Total	Albumin	Globulin	Total	Albumin	Globulin
Minimum	5,8	3,2	2,1	5,4	3,2	1,9
Maximum	7,5	5,2	3,6	7,6	5,3	3,4
Mean	6,8	3,8	3	6,7	4,2	2,5
S.D.	±0.41	±0.41	±0.33	±0.53	±0.56	±0.43
% Change.	Total P. ↓1,4%		Albumin ↑10%		globulin ↓16%	

(Table No 10)

Effect of Splenectomy on the (No of B Lymphocytes /Cu.mm)

	Preoperative	Postoperative
Minimum	15	21
Maximum	75	115
Mean	38,6	44,8
S.D.	± 15,94	±25,98
% Change	↑ 16 %	

(Table No 11)

Effect of Splenectomy on the (Level of Serum IgG mg/di)

	Preoperative	Postoperative
Minimum	1006	387
Maximum	1974	1970
Mean	1650	1213
S.D.	340	490
% Change	↓ 26 %	

(Table No 12)

Effect of Splenectomy on the (Serum Level of IgA mg/di)

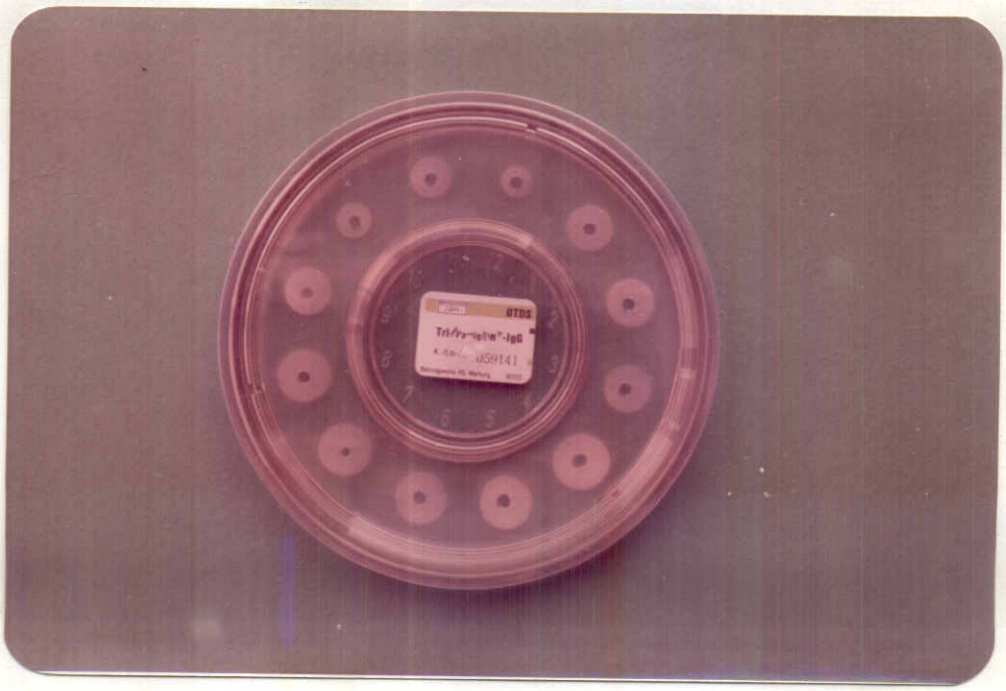
	Preoperative	Postoperative
Minimum	157,4	120,4
Maximum	350	350
Mean	264,35	269,37
S.D.	±63,7	±72,90
% Change	↑ 1,8 %	

(Table No 13)

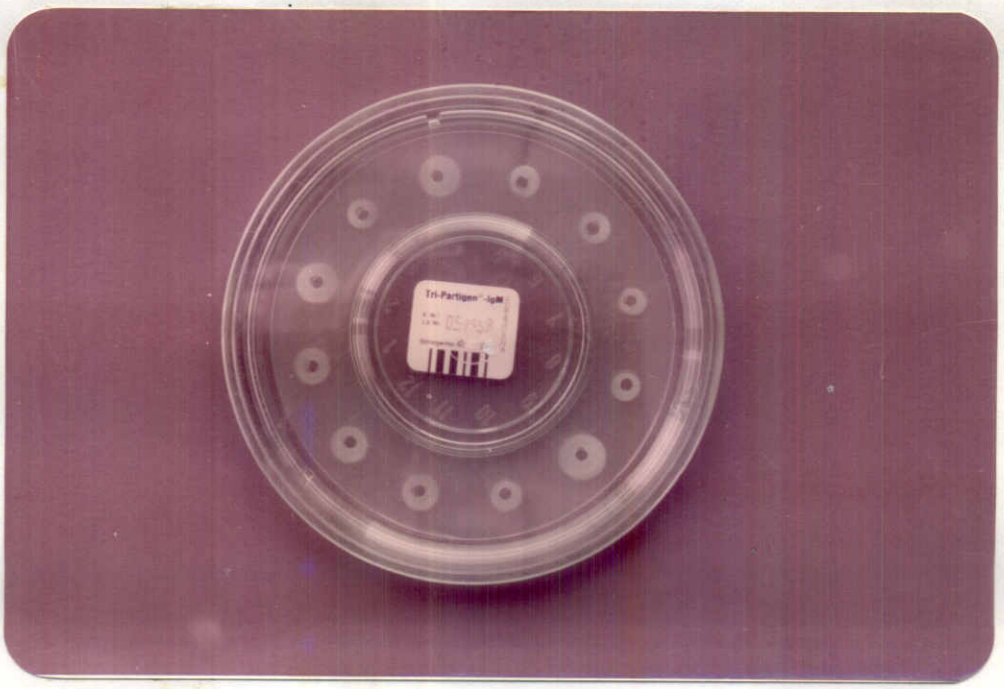
Effect of Splenectomy on the (Serum Level of IgM mg/di)

	Preoperative	Postoperative
Minimum	34,2	34,2
Maximum	279,2	235
Mean	119,136	88,5
S.D.	± 84,22	±46,78
% Change	↓25.7 %	

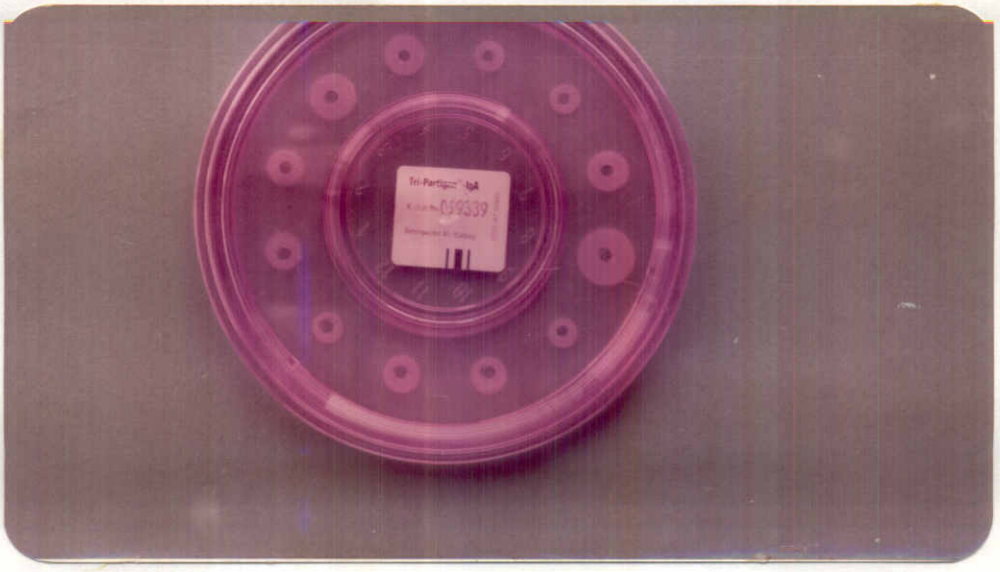
(Table No 14)



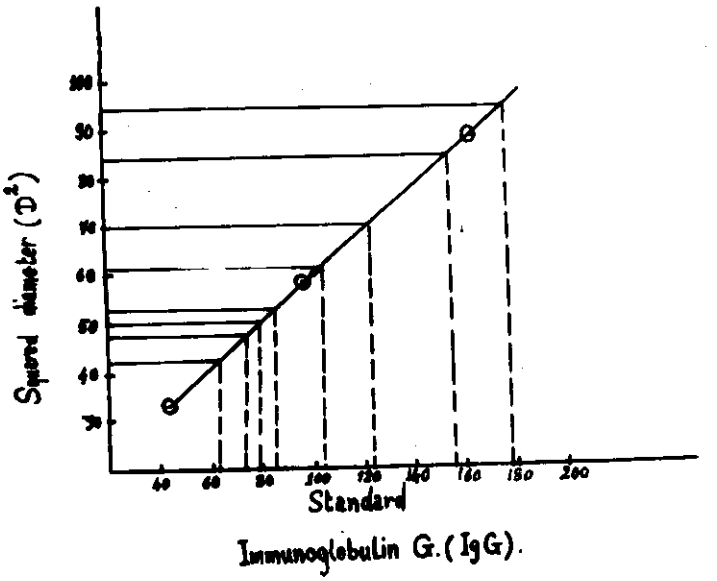
Immuno diffusion plate, showing precipitation rings of IgG. Fig (6)



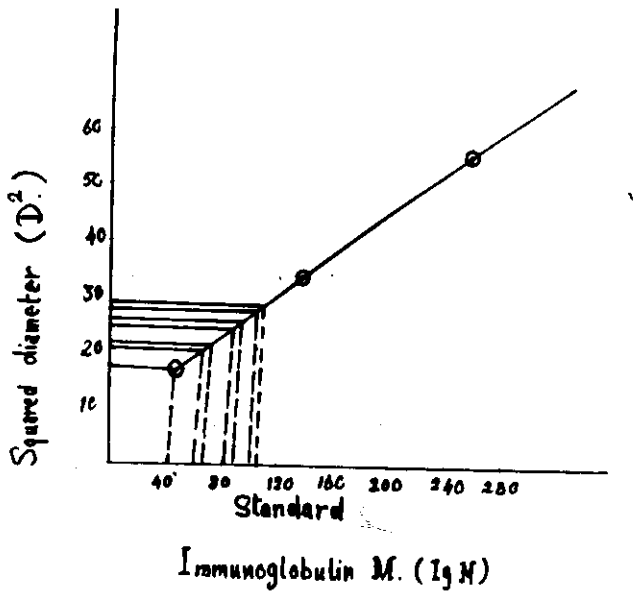
Immuno diffusion plate, showing precipitation rings of IgM. Fig.(7)



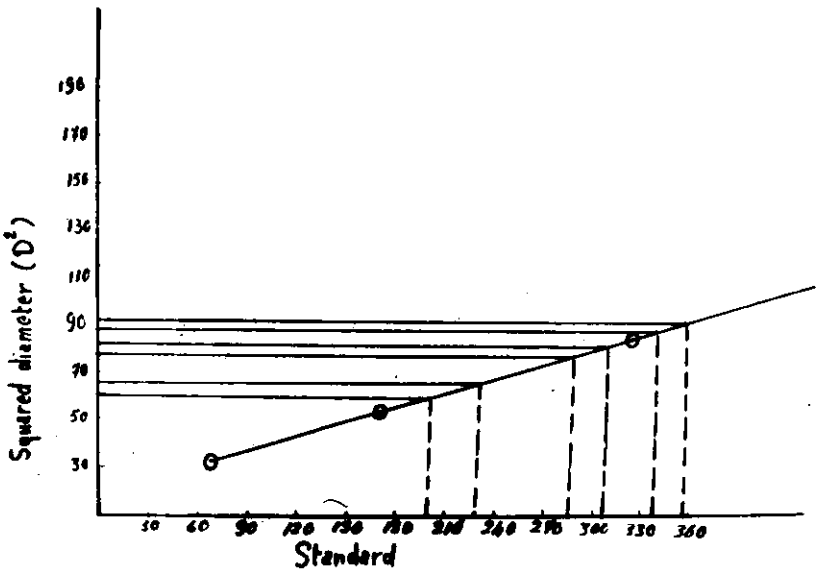
Immuno diffusion plate, showing precipitation rings of IgA. Fig. (8)



Calibration Curve for IgG. Fig (9)

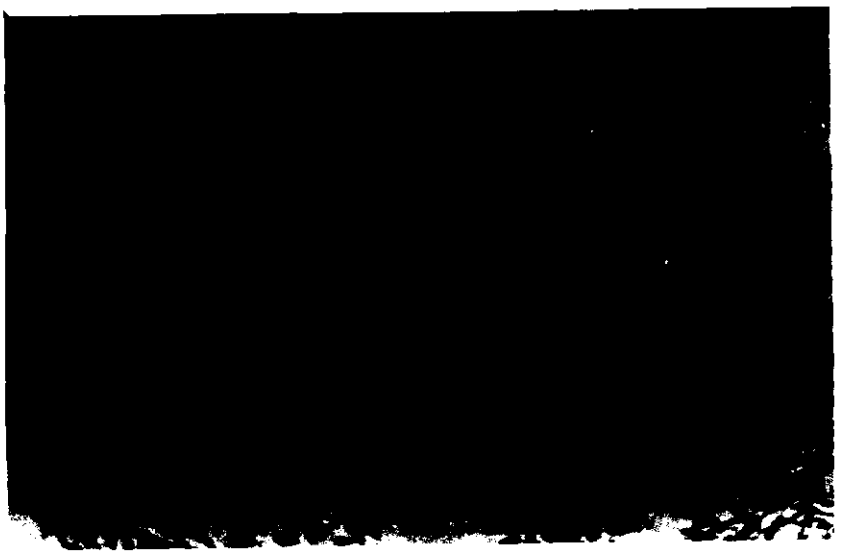


Calibration Curve for IgM. Fig.(10)



Calibration Curve for IgA. Fig.(11)

Microscopical appearance shows thickened liver capsule, presence of schistosomal granulomas. Fig. (12)



Microscopical appearance shows schistosomal granulomas, composed of ova surrounded by immuno cellular reaction composed of (lymphocytes, plasma Cells, Eosinophils, macrophages and giant cells). Fig. (13).

Microscopical appearance shows thickened portal tract, Fibrosed and infiltrated by Bilharzial granulation tissue.
There are some chronic inflammatory cells surrounding the portal tract.
There is angiomatoid formation together with hyperplasia of bile ducts.

Fig. (14)

Microscopical appearance shows very thick portal tract with manifested increase in vascularity (angiamatoid formation), loss of lobular architecture.

Fig. (15)

Microscopical appearance shows chronic active hepatitis with necrosis of liver cells. Fig. (16)