

A decorative border of various flowers and leaves, including tulips, daisies, and small sprigs, framing the central text.

# RESULTS

## **RESULTS**

### **A- Clinical Findings:**

- *Control group (Group IV):* included 10 subjects, 8 males and 2 femals. Their age ranged between 25-38 years 8 were males and 2 females.

### **- Patients groups (Groups I, II and III):**

Were investigated 6 to 18 months after replacement of the valves and included 25 males and 14 females. Their age ranged between 14 to 44 years. According to type and position of the prosthetic valve, they were classified into:

*Group I:* Consisted of (14) (11) were males and 3 were femals patients with tilting valve replacement their age ranged between 25-42 years “9 patients with Bjork-Shiley and 5 with Omniscience” 5 patients in the mitral position and 9 patients in Aortic position.

*Group II :* 10 Patient with Ball valve replacement, of starr-Edwards variety. 9 of them in the mitral position and 1 in the Aortic position. Their age ranged between 14 y. to 35 years 6 male & 4 female.

*Group III:* 15 Patients with double valve prosthesis in the mitral and Aortic positions. The replacement was by Ball or tilting Disc valve types. age ranged between 17 to 44 years.

## **B- Laboratory findings:-**

### **I- Hemotological Findings:-**

#### ***(1) Hemoglobin concentration (g/dl):***

- \* *Control group (group IV):* Hb concentration ranged from 11.9 g/dl to 15.5 with a mean value of 13.37 g/dl and S.D. 1.11 g/dl.
- \* *Group I :* Hb concentration ranged from 10.8 g/dl to 15.1 g/dl with a man value of 12.9 g/dl and S.D. 1.31 g/dl.
- \* *Group II:* Hb concentration ranged from 8.2 g/dl to 14 g/dl with a mean value of 12.33 g/dl S.D. 1.97 g/dl.
- \* *Group III:* Hb concentration ranged from 11.7 g/dl to 15.5 g/dl with a mean value of 13.6 g/dl and S.D. 1.06 g/dl. statistical analysis showed that no difference in the patient's groups when compared with the control group ( $P > 0.05$ ).

**2- Hematocrit value:**

- \* *Control group (group IV):* Ht value ranged from 35% to 48% with a mean value of 41% and S.D. 3.68%.
- \* *Group I:* Ht value ranged from 32.7% with a mean value of 40.4% and S.D. 4.2%.
- \* *Group II:* Ht value ranged from 30.1% to 44.8% with a mean value of 38.3% and S.D. 5.1%.

*Group III:* Ht value ranged from 36.3% to 45.1%.

With a mean value of 41.9% and S.D. 2.8% statistically, no difference between patient's group and control group ( $P > 0.05$ ).

**3- Reticulocyte count:**

- \* *Control group (group IV):* Ret. count ranged from 0.5% to 1.2% with a mean value of 0.85% and S.D. 0.25% .
- \* *Group I:* Ret. count ranged from 0.6% to 2.3% with a mean value of 1.2% and S.D. 0.5%.
- \* *Group II:* Ret. count ranged from 0.6% to 2.2% with a mean value of 1.19% and S.D. 0.4%.
- \* *Group III:* Ret. count ranged from 0.8% to 1.8% with a mean value of 1.12% and S.D. 0.27% statistically, no significant

difference was found between patient's groups & control group (except group III) ( $P > 0.05$ ).

**4- Osmotic fragility test:**

- \* *Control Group (group IV):* O.F. was normal, started at 0.45 NaCl% and ended at 0.35 NaCl% in all cases.
- \* *Group I:* Starting of lysis ranged from 0.35% NaCl% to 0.55% NaCl% with a mean value of 0.44 NaCl% and S.D. 0.07% NaCl%. end of lysis ranged from 2.0 NaCl% to 0.35% NaCl% with a mean value of 0.27 NaCl% and S.D. 0.05 NaCl%.
- \* *Group II:* Starting of lysis ranged from 0.35 NaCl% to 0.45 NaCl% with a mean value of 0.43 NaCl% and S.D. 0.03 NaCl%.  
  
End of lysis ranged from 0.2 NaCl% to 0.45 NaCl% with a mean-value of 0.25 NaCl% and S.D. 0.08 NaCl%.
- \* *Group III:* Starting of lysis ranged from 0.4 NaCl% to 0.5 NaCl% with a mean value of 0.44 NaCl% and S.D. 0.04 NaCl%. end of lysis ranged from 0.2 NaCl% to 0.3 NaCl% with a mean value 0.23 NaCl% and S.D. 0.04 NaCl% statistically, no significant data from this category.

## **II- Other Laboratory Findings:**

### ***1- Serum Haptoglobin (g/dl):***

- \* *Control group "IV":* Serum Haptoglobin ranged from 1.02 g/dl to 2.89 g/dl with a mean value of 1.54 g/dl and S.D. 5.56 g/dl.
- \* *Group I:* Serum Haptoglobin ranged from zero g/dl to 1.99 g/dl with a mean value of 0.68 g/dl and S.D. 0.5 g/dl.
- \* *Group II:* Serum Haptoglobin ranged from zero g/dl to 1.5 g/dl with a mean value of 0.43 g/dl and S.D. 0.44 g/dl.
- \* *Group III:* Serum Haptoglobin ranged from zero g/dl to 1.7 g/dl with a mean value of 0.87 g/dl and S.D. 0.53 mg/dl.

Statistical analysis showed that, there was significant difference in the results of patient's groups when compared with control group ( $P < 0.001$ ).

### ***2- Serum Lactate Dehydrogenase (LDH) (Iu/L):***

- \* *Control group (group IV):* Serum LDH activity ranged from 90 u/L to 150 u/L. with on mean value of 120 u/L abd S. D. 18.26 u/L.
- \* *Group I:* Serum LDH activity ranged from 297 u/L to 999 u/L with a mean value of 596.2 u/L and S. D. 170.9 u/l.