# RESULTS

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*Table (1):* Sex distribution of the studied group.

| Studied group / Sex | DLC | | Controls | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Males | 24 | 60% | 12 | 60% | 36 | 60% |
| Females | 16 | 40% | 8 | 40% | 24 | 40% |
| Total | 40 | 100.0 | 20 | 100.0 | 60 | 100.0 |

**Table (1) shows:**

DLC [n = 40 (males: 24 – females 16)]

Controls [n = 20 (males: 12 – females 8)].

*Table (2):* Age distribution of the studied group.

| Studied group / Age (years) | DLC | | Controls | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| < 45 years | 17 | 42.5 | 7 | 35.0 | 24 | 40.0 |
| 45 years | 13 | 32.5 | 7 | 35.0 | 20 | 33.3 |
| > 45 years | 10 | 25.0 | 6 | 30.0 | 16 | 26.7 |
| Total | 40 | 100.0 | 20 | 100.0 | 60 | 100.0 |

$X^2 = 0.338$

$P > 0.05$

Table (2) shows insignificant difference in age among DLC patients and controls.

*Table (3):* Comparison between the studied group regarding age.

| Age (years) / Studied group | X (mean) | ± SD | Range | |
|---|---|---|---|---|
| | | | Minimum | Maximum |
| DLC | 47.2 | ± 13.4 | 23.0 | 68.0 |
| Controls | 50.9 | ± 11.9 | 32.0 | 70.0 |
| t | 1.030 | | | |
| P | > 0.05 | | | |

Table (3) shows mean age distribution among the studied group.

DLC = 47.2 ± 13.4

Controls = 50.9 ± 11.9

*Table (4):* Blood picture of the studied group.

| Studied group / Blood picture | DLC | Controls | t | P |
|---|---|---|---|---|
| | X ± SD | X ± SD | | |
| HB% | 11.13 ± 2.11 | 13.15 ± 1.28 | 3.928 | < 0.05 significant |
| ESR | 20.8 ± 14.6 | 7.9 ± 3.19 | 3.889 | < 0.05 significant |

Table (4) showing (mean Hb levels in DLC were 11.13 ± 2.11 and in controls 13.15 ± 1.28 gm%).

(ESR levels in DLC were 20.8 ±14.6 and in controls 7.9 ± 3.19) and so it shows a significant difference between the two groups.

*Fig. (1):* **Blood picture among the studied groups.**

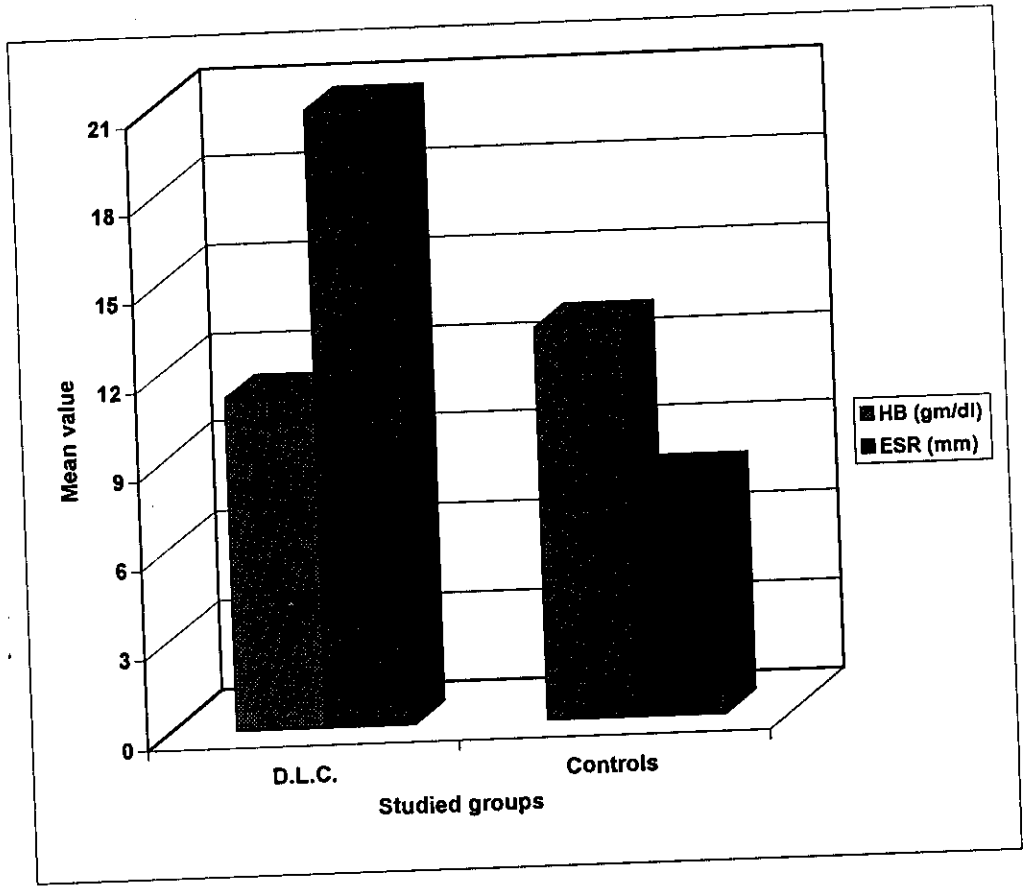


*Table (5):* Liver function test of the studied group.

| Studied group / Liver function | DLC | Controls | t | P |
|---|---|---|---|---|
| | X ± SD | X ± SD | | |
| SGOT | 36.77 ± 13.57 | 15.6 ± 2.99 | 6.867 | < 0.01 (H.S.) |
| SGPT | 46.2 ± 22.32 | 17.35± 3.26 | 5.755 | < 0.01 (H.S.) |
| S. Albumin | 2.71 ± 0.49 | 3.92 ± 0.28 | 10.224 | < 0.01 (H.S.) |
| Prothrombin time | 15.79 ± 2.14 | 12.84 ± 1.50 | 6.197 | < 0.01 (H.S) |

Table (5) shows a highly significant difference between DLC patients and control group.

*Fig. (2):* Liver function tests among the studied groups.

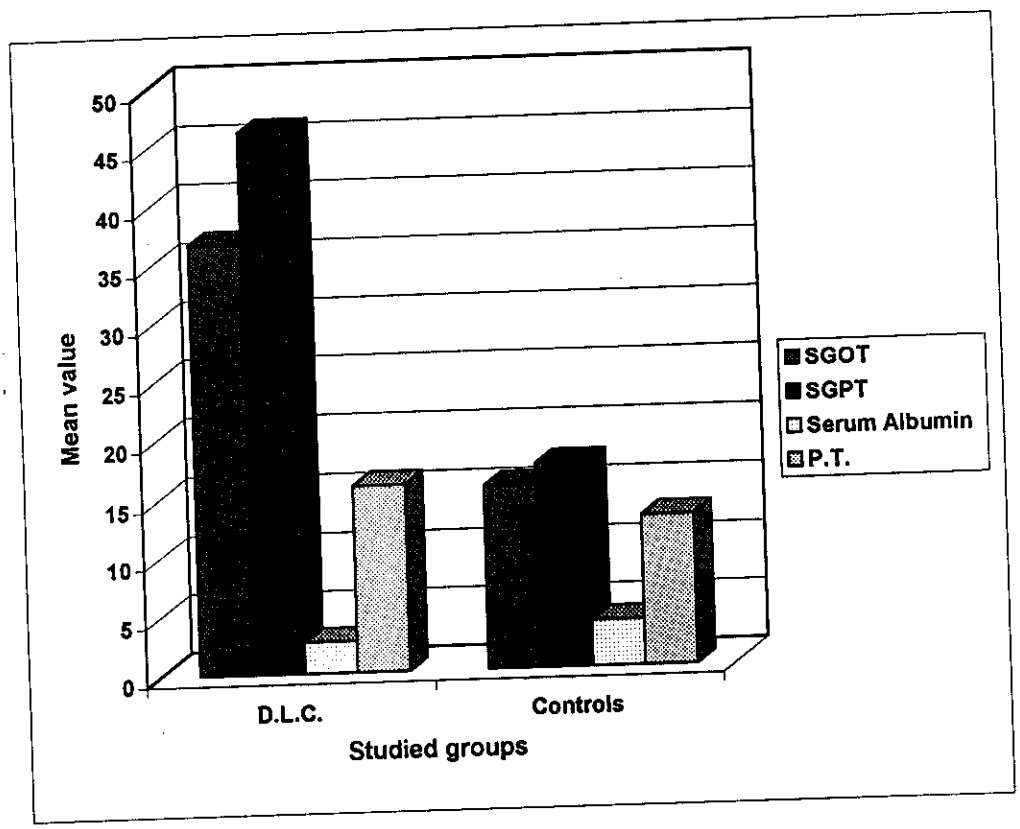


*Table (6):* Kidney function test of the studied group.

| Studied group / Kidney function | DLC X ± SD | Controls X ± SD | t | P |
|---|---|---|---|---|
| Serum creatinine | 1.50 ± 0.73 | 0.97 ± 0.28 | 3.099 | < 0.05 (S) |
| Blood urea | 26.47 ± 14.09 | 18.50 ± 3.33 | 2.486 | < 0.05 (S) |

Table (6) shows a significant disturbance in kidney function test in DLC patients in comparison to controls.

*Fig. (3):* Kideny function tests among the studied groups.

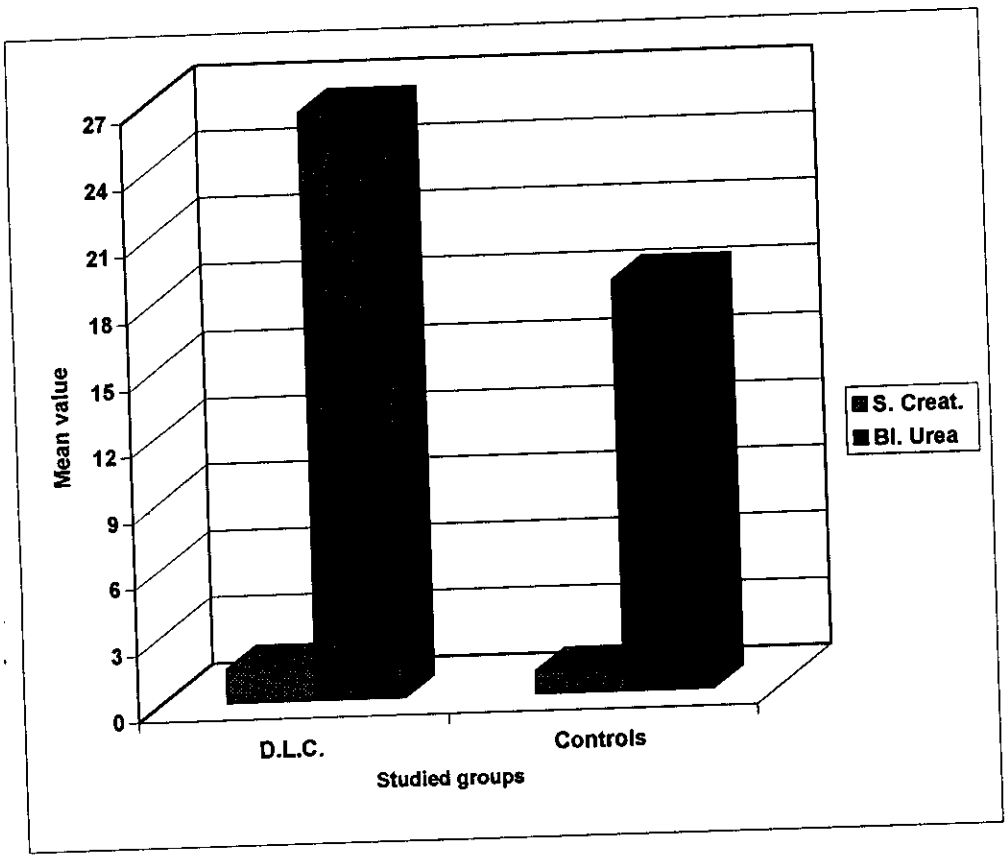


*Table (7):* Rapid urease test for detection of *Helicobacter pylori* in the studied group.

| Studied group / R.U.T. | DLC | | Controls | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Positive | 28 | 70.0 | 7 | 35 | 35 | 58.3 |
| Negative | 12 | 30.0 | 13 | 65.0 | 25 | 41.7 |
| Total | 40 | 100.0 | 20 | 100.0 | 60 | 100.0 |

$X^2 = 6.720$ $P < 0.05$

Table (7) shows that DLC patients had a significant positive results in comparison to controls (28 +ve tests).

*Table (8):* Results of rapid urease test for detection of *Helicobacter pylori* infection in DLC with and without H.E.

| Encephalopathy / RUT | | Present | Absent | Total |
|---|---|---|---|---|
| +ve | No. | 22 | 6 | 28 |
| | % | 78.57 | 50 | 70 |
| -ve | No. | 6 | 6 | 12 |
| | % | 21.43 | 50 | 30 |
| Total | | 100.0 | 100.0 | 100.0 |

$X^2 = 5.215$ $P < 0.05$

Table (8) shows that DLC patients with H.E. had a significant positive results (22 +ve tests).

*Fig. (4):* **Results of R.U. test among the studied groups.**

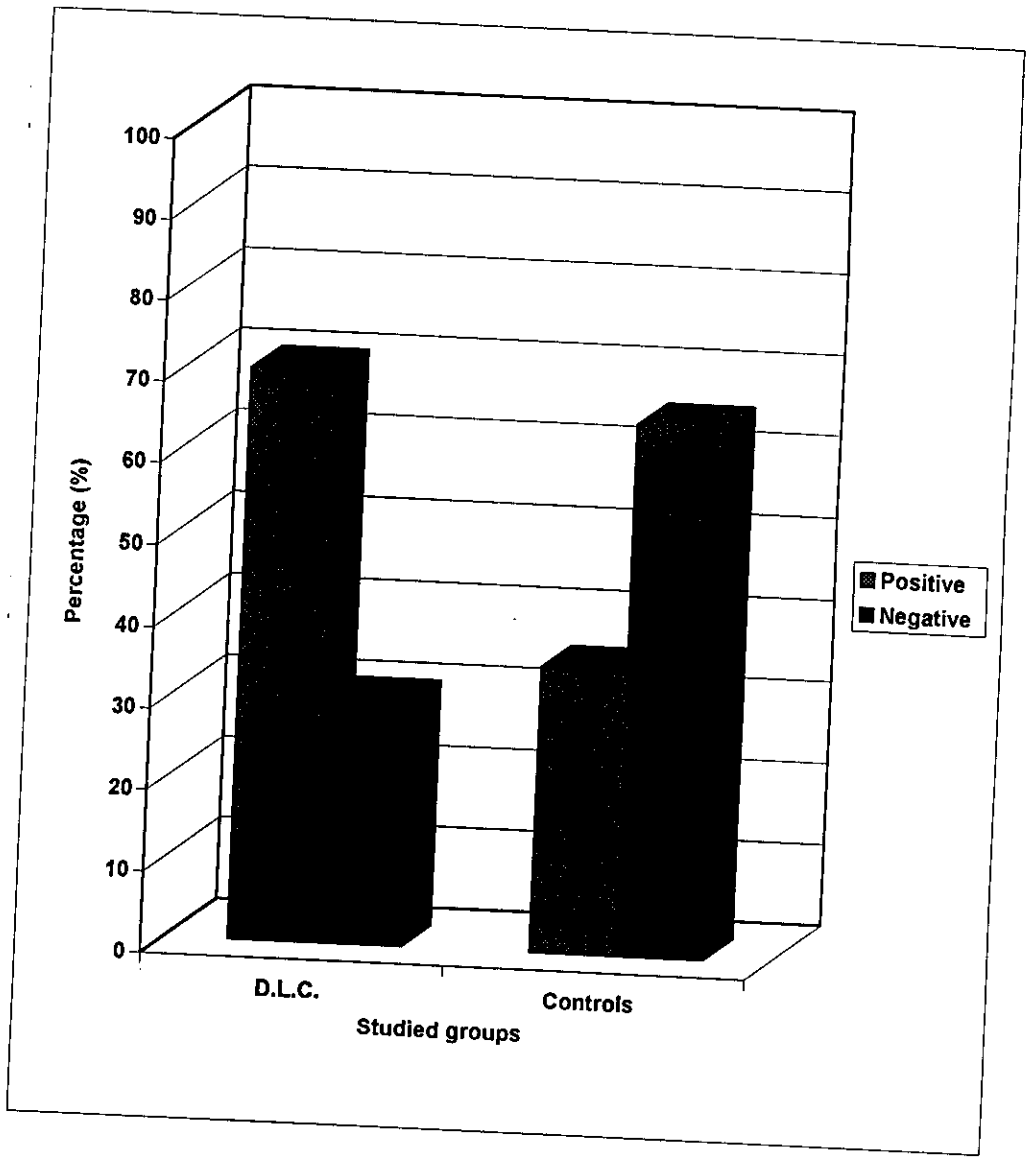


*Fig. (5):* **Results of R.U. test among patients with and without hepatic encephalopathy.**

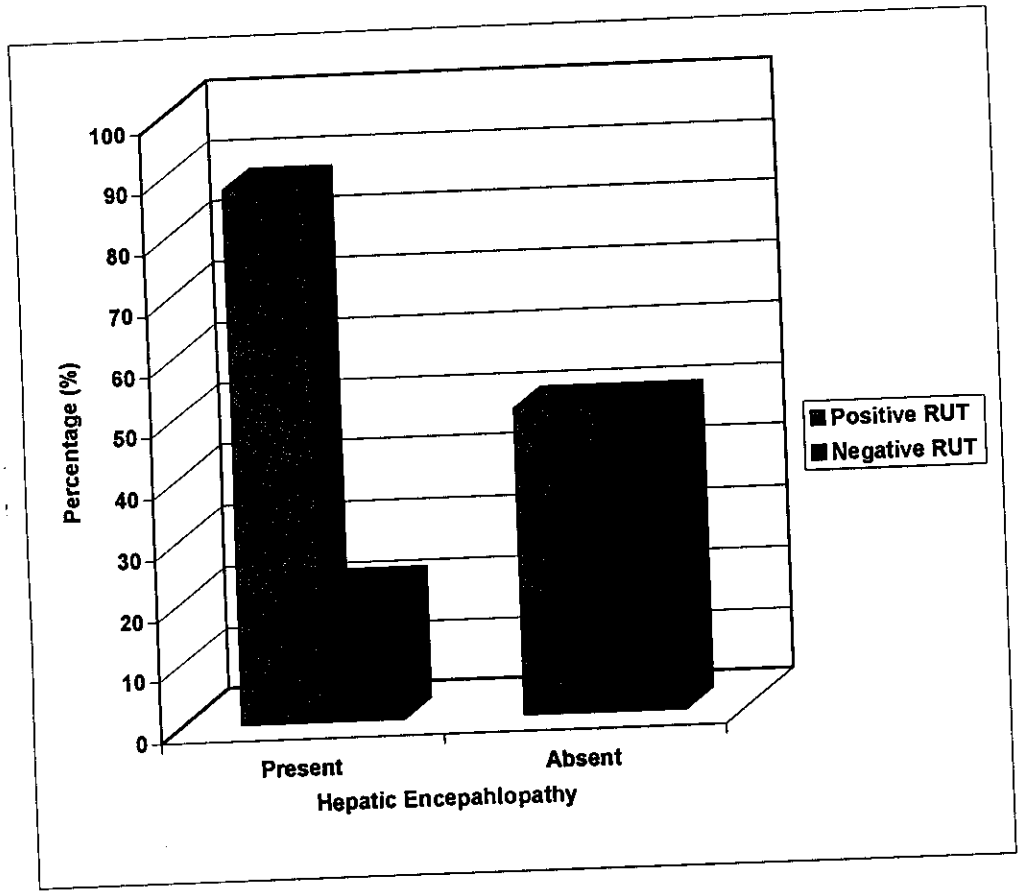


*Table (9):* Results of histopathological examination for detection of *Helicobacter pylori* infection of the studied group.

| Sex \ Studied group | DLC | | Controls | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| -ve | 9 | 22 | 10 | 50.0 | 19 | 33.3 |
| +ve / -ve | 4 | 10.0 | 1 | 5.0 | 5 | 6.7 |
| +ve | 16 | 40.0 | 5 | 25.0 | 21 | 35.0 |
| ++ve | 9 | 22.5 | 3 | 15.0 | 12 | 20.0 |
| +++ve | 2 | 5.0 | 1 | 5.0 | 3 | 5.0 |
| **Total** | 40 | 100.0 | 20 | 100.0 | 60 | 100.0 |

Table (9) shows positive histopathological changes concomitent with *H. pylori* infection more common in DLC.

*Table (10):* Results of histopathology for detection of *Helicobacter pylori* in DLC patients with and without H.E.

| H.E. / Histopathology | Present | | Absent | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| -ve | 3 | 10.71 | 6 | 50.0 | 9 | 22.50 |
| +/- | 3 | 10.71 | 1 | 8.33 | 4 | 10.00 |
| +ve | 11 | 39.29 | 5 | 41.67 | 16 | 40.00 |
| ++ve | 9 | 32.14 | 0 | 00 | 9 | 22.50 |
| +++ve | 2 | 7.14 | 0 | 00 | 2 | 5.0 |
| **Total** | 28 | 100.0 | 12 | 100.0 | 40 | 100.0 |

Table (10) shows a histopathologic changes of *Helicobacter pylori* infection more common in DLC patients with H.E.

*Fig. (6):* **Histopathological examination among the studied groups.**

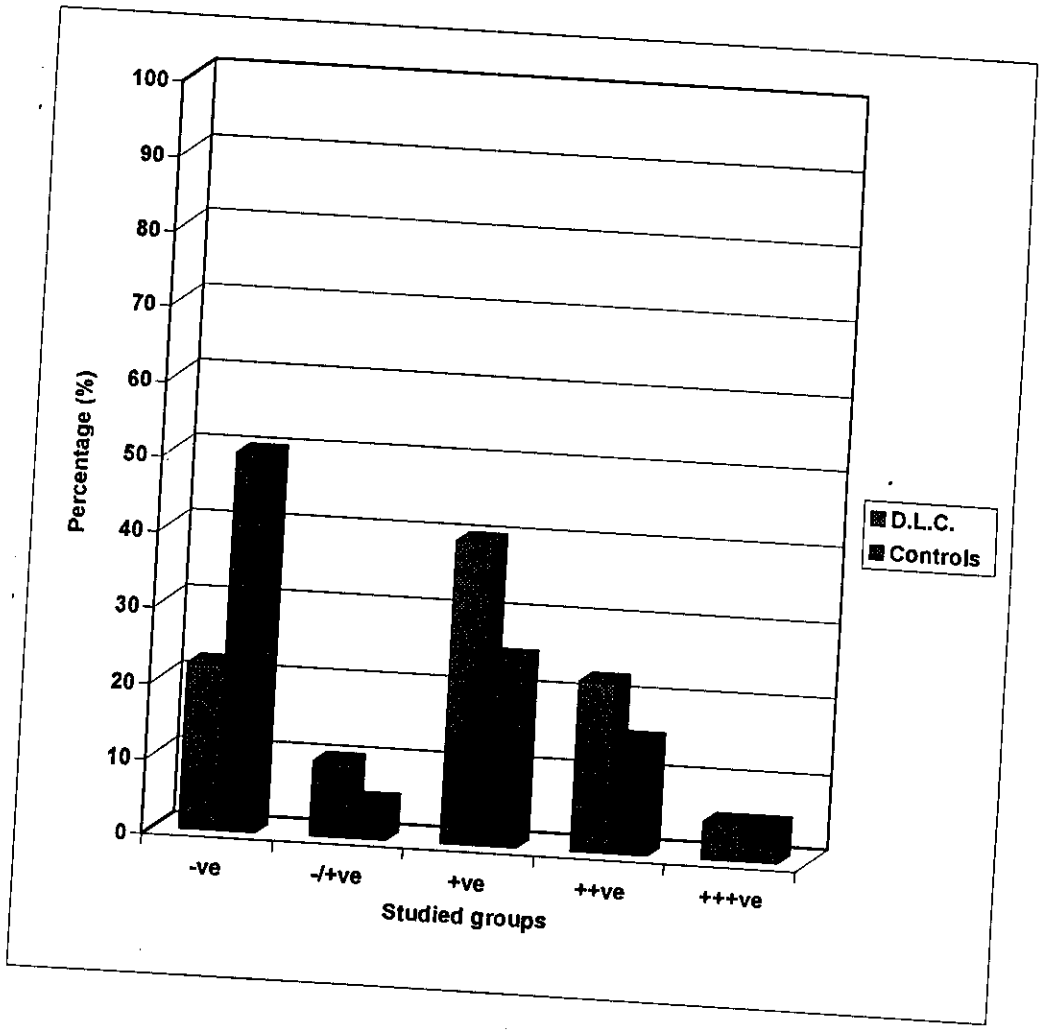


*Fig. (7):* **Histpath. Examination among patients with and without hepatic Encephalopathy.**

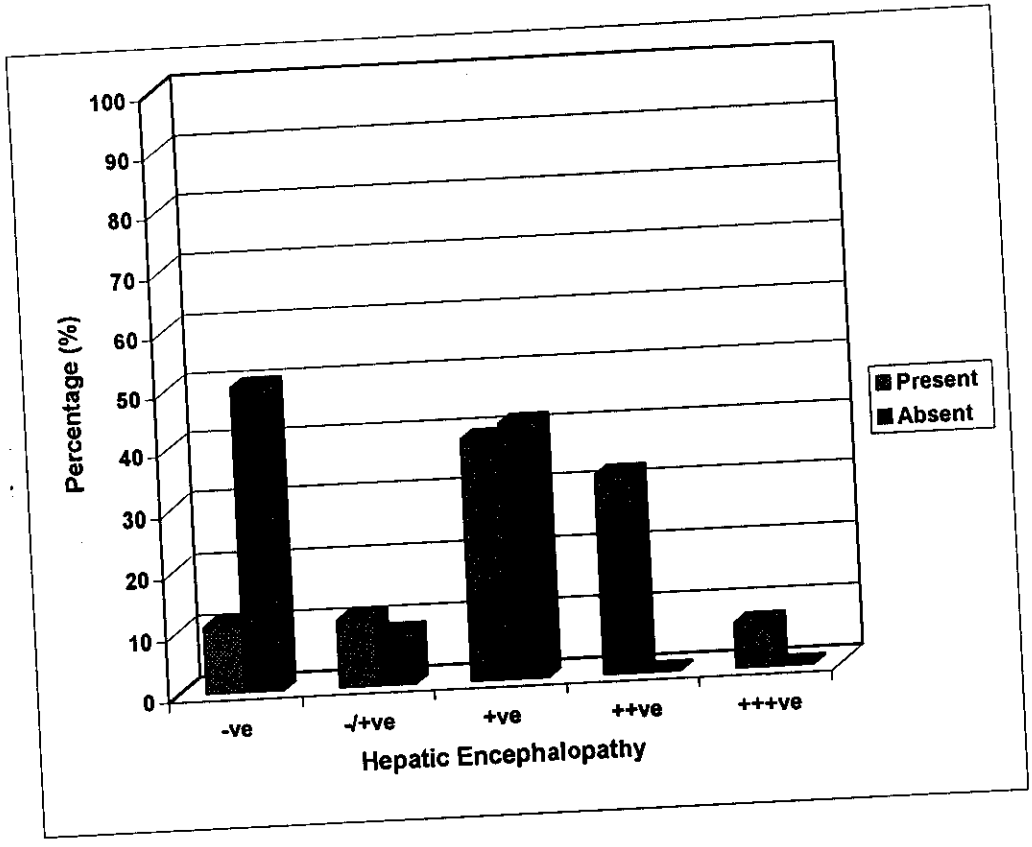


*Table (11):* Results of ELIZA in detection of *Helicobacter pylori* infection in the studied group.

| Studied group / ELIZA | DLC | | Controls | | Total | | $X^2$ | P |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | | |
| IgA | | | | | | | | |
| +ve | 36 | 90.0 | 13 | 65.0 | 49 | 81.7 | 5.566 | < 0.05 (S) |
| -ve | 4 | 10.0 | 7 | 35.0 | 11 | 18.3 | | |
| Total | 40 | 100.0 | 20 | 100.0 | 60 | 100.0 | | |
| IgG | | | | | | | | |
| +ve | 33 | 82.5 | 11 | 55.0 | 44 | 73.3 | 5.156 | < 0.05 (S) |
| -ve | 7 | 17.5 | 9 | 45.0 | 16 | 26.7 | | |
| Total | 40 | 100.0 | 20 | 100.0 | 60 | 100.0 | | |

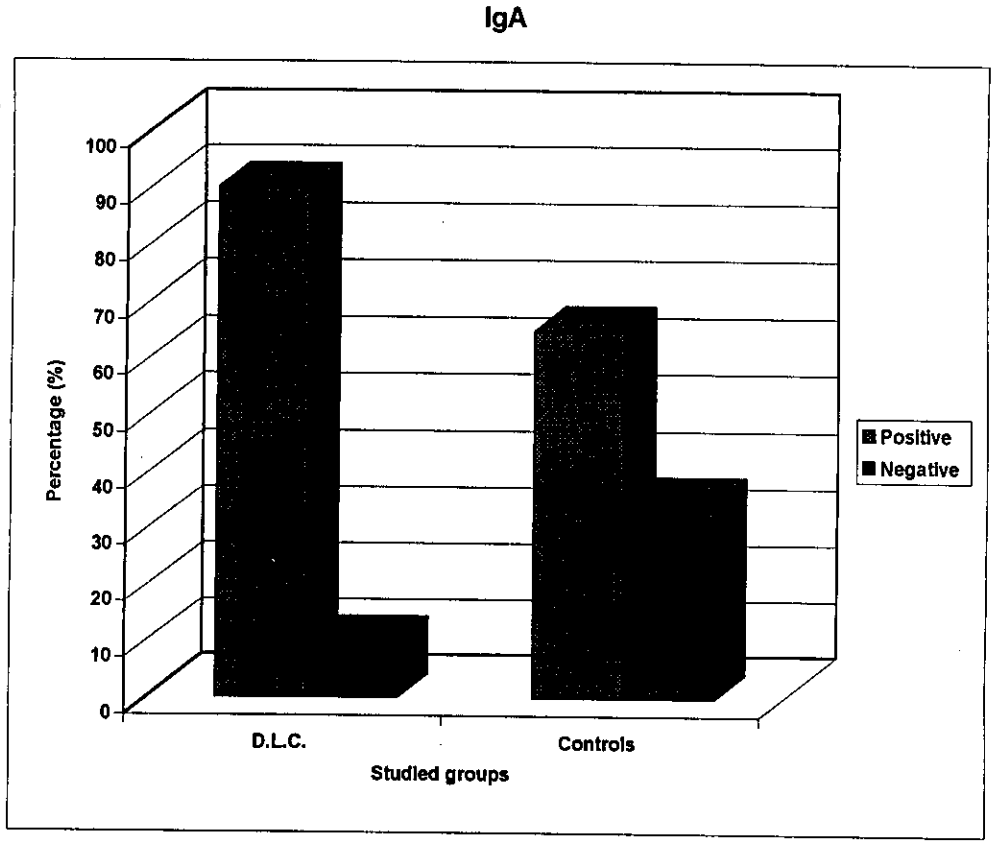
Table (11) shows a significant higher immunoglobulin levels in DLC patients.

*Table (12):* Results of ELIZA in detection of *Helicobacter pylori* in DLC patients with and without H.E.

| H.E. / ELIZA | Present | | Absent | | Total | | $X^2$ | P |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | | |
| IgA | | | | | | | | |
| +ve | 28 | 100.0 | 8 | 66.67 | 36 | 90.0 | 10.37 | < 0.01 (S) |
| -ve | 0 | 00 | 4 | 33.33 | 4 | 10.0 | | |
| **Total** | 28 | 70.00 | 12 | 30.0 | 40 | 100.0 | | |
| IgG | | | | | | | | |
| +ve | 25 | 89.29 | 7 | 58.33 | 32 | 80.0 | 5.030 | < 0.05 (S) |
| -ve | 3 | 10.71 | 5 | 41.67 | 8 | 20.00 | | |
| **Total** | 28 | 70.00 | 12 | 30.00 | 40 | 100.0 | | |

Table (12) shows that immunoglobulin levels were significantly higher in DLC patients with H.E.

*Fig. (8):* **Results of ELIZA IgA and IgG among the studied groups.**



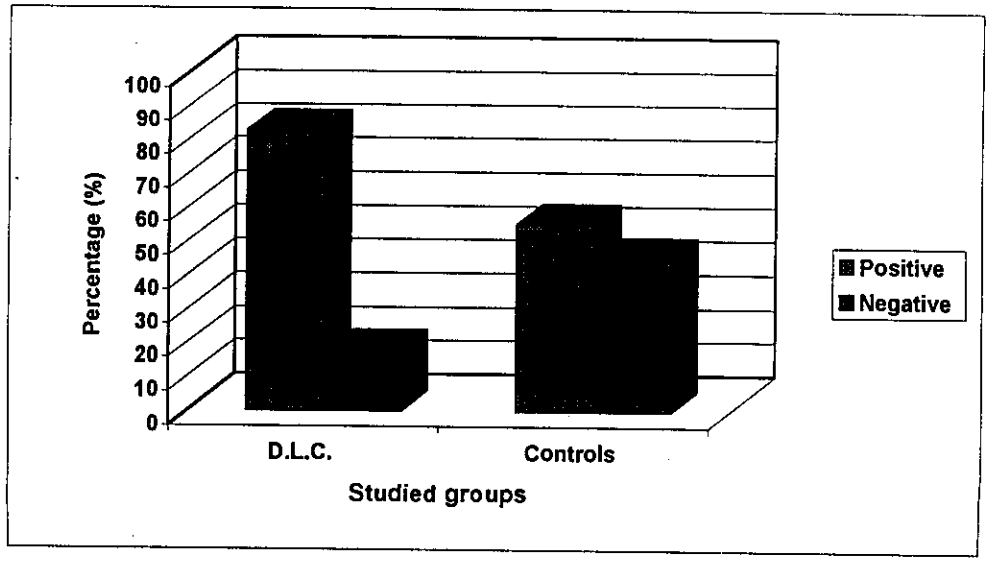
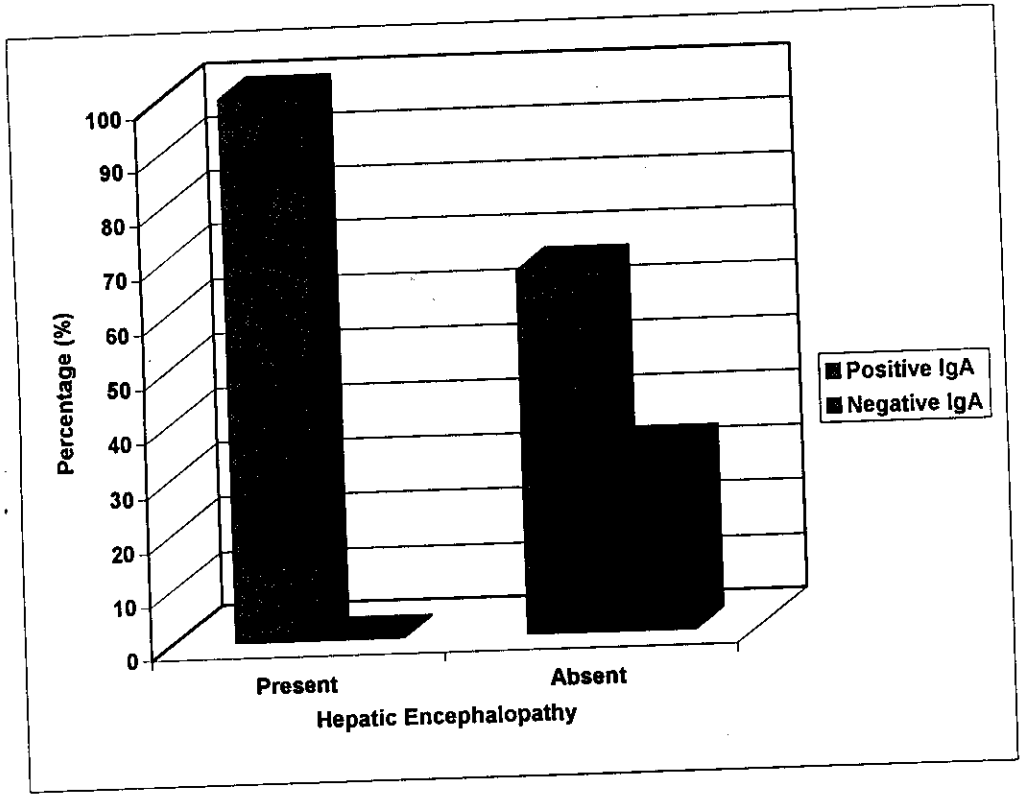



*Fig. (9):* Results of ELIZA among patients with and without Hepatic Encephalopathy.

IgA




IgG

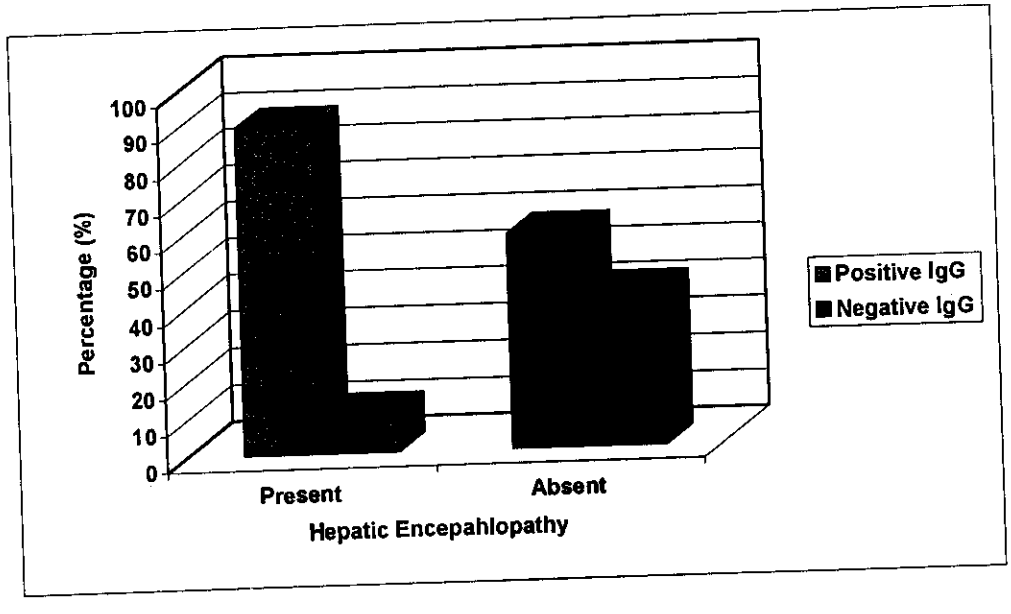


*Table (13):* Blood ammonia level of the studied group.

| Blood ammonia level / Studied groups | X (mean) | ± SD | t | P |
|---|---|---|---|---|
| DLC | 84.86 | ± 34.61 | 7.403 | < 0.01 |
| Controls | 26.05 | ± 10.48 | | |

Table (13) shows significant high blood ammonia level in DLC patients (84.86 ± 34.61).

*Table (14):* Blood ammonia level in patients with and without H.E.

| Blood ammonia level / H.E. | X (mean) | ± SD | t | P |
|---|---|---|---|---|
| Present | 93.8 | ± 34.5 | 2.681 | < 0.05 |
| Absent | 64.0 | ± 25.4 | | |

Table (14) shows higher level of blood ammonia in patients with H.E.

*Fig. (10):* Blood ammonia level among the studied groups.

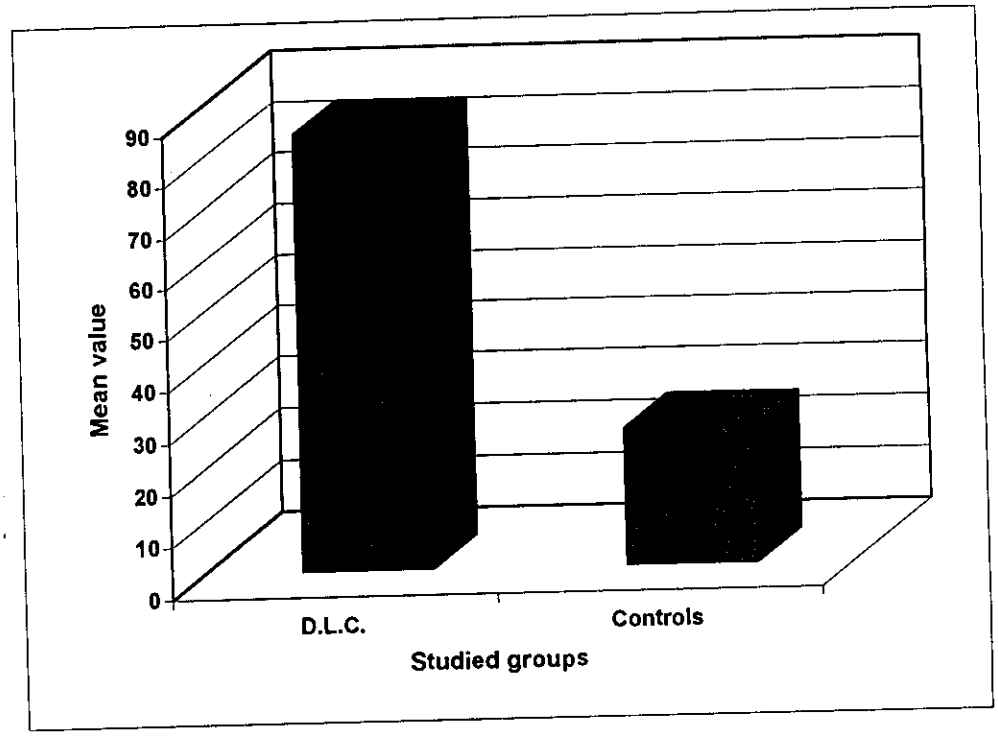


*Fig. (11):* **Blood amonia level of patients with and without Hepatic Encephalopathy.**

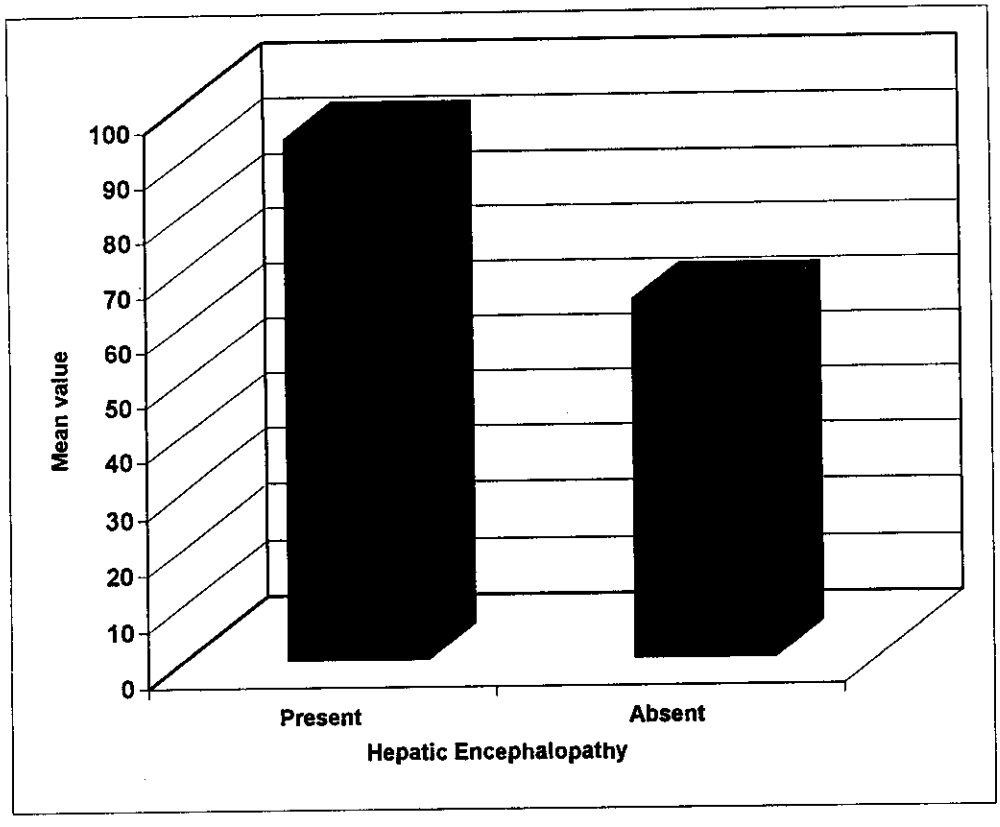


*Table (15):* Gastric ammonia level of the studied group.

| Gastric ammonia level / Studied group | X mean | ±SD | t | P |
|---|---|---|---|---|
| DLC | 3.42 | ± 1.91 | 7.397 | < 0.01 |
| Controls | 0.21 | ± 0.15 | | |

Table (15) shows a significant rise of gastric ammonia level in patients with DLC in comparison to control group.

*Table (16):* Gastric ammonia level in patients with and without HE.

| Gastric ammonia level / H.E. | X mean | ±SD | t | P |
|---|---|---|---|---|
| Present | 3.82 | ± 1.91 | 2.088 | < 0.05 |
| Absent | 2.50 | ± 1.63 | | |

Table (16) shows a significant high levels of gastric ammonia in patients with H.E.

*Fig. (12):* **Gastric ammonia level among the studied groups.**

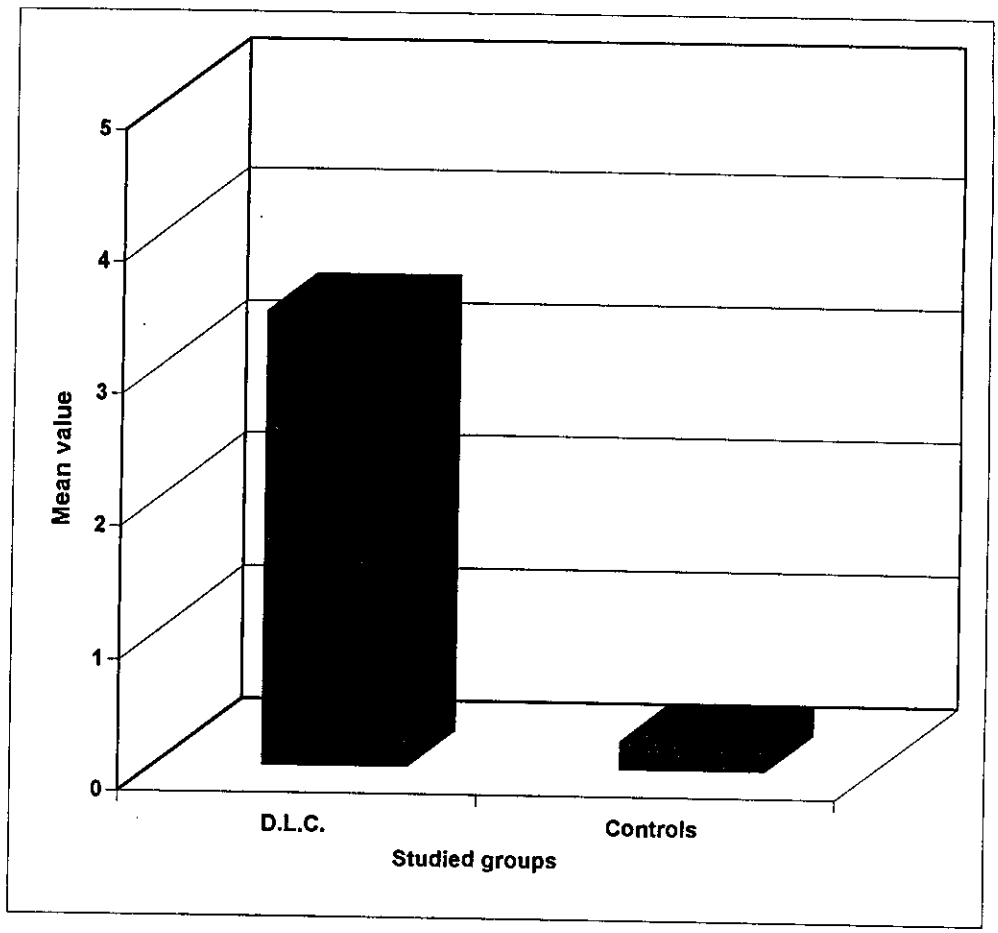


*Fig. (13):* Gastric amonia level in patients with & without Hepatic Encepahlopathy.