**Table (1): comparison between the three studied groups regarding NGF expression:**

| Parameter | Group 1 (with pruritus) (N= 20) | Group 2 (without pruritus) (N= 20) | Group 3 (Control group) (N= 20) | P-value |
|---|---|---|---|---|
| **Spinous layer** **Mean± S.D.** **Median (Range)** | **0.9 ± 0.6** **1 (0– 2)** | **0.7 ± 0.5** **1 (0 – 1)** | **0.8 ± 0.4** **1 (0 – 1)** | 0.374 |
| **Basal cell** **Mean± S.D.** **Median (Range)** | **1.9 ± 0.8** **2 (1 – 3)** | **1.3 ± 0.4** **1 (1 – 2)** | **0.8 ± 0.4** **1 (0 – 1)** | **< 0.001*** |
| **Total epidermis** **Mean± S.D.** **Median(Range)** | **2.8 ±1.1** **3 (1 -4)** | **1.9 ±0.7** **2 (1-3)** | **1.6 ±0.8** **2 (0 -2)** | **0.002*** |
| **Nerves** **Mean± S.D.** **Median (Range)** | **0.4 ± 0.5** **0 (0 – 1)** | **0.4 ± 0.5** **0 (0 – 1)** | **0.3 ± 0.5** **0 (0 – 1)** | **0.806** |
| **Fibroblasts** **Mean± S.D.** **Median (Range)** | **1.2 ± 0.5** **1 (0 – 2)** | **0.9 ± 0.5** **1 (0 – 2)** | **0.9 ± 0.6** **1 (0 – 2)** | **0.166** |
| **Hair follicle** **Mean± S.D.** **Median (Range)** | **0.7 ± 0.7** **1 (0 – 2)** | **0.6 ± 0.6** **1 (0 – 2)** | **0.5 ± 0.5** **0.5 (0– 1)** | **0.741** |
| **Eccrine** **Mean± S.D.** **Median (Range)** | **0.9 ± 0.9** **1 (0 – 2)** | **0.5 ± 0.5** **0.5 (0– 1)** | **0.5 ± 0.5** **0.5 (0– 1)** | **0.380** |
| **Total dermis** **Mean± S.D.** **Median (Range)** | **3.1 ± 1.8** **3.5 (0-6)** | **2.5 ±1.4** **3 (0-4)** | **2.2 ± 1.3** **2 (1-4)** | **0.192** |
| **Total NGF** **(epidermis+dermis)** **Mean± S.D.** **Median (Range)** | **5.9 ±2.7** **6.5 (1 -10)** | **4.4 ±1.8** **5 (1-7)** | **3.8 ±1.6** **3 (2 -6)** | **0.016*** |

**P-value was calculated by Kruskal Wallis test  * statistically significant**

**Table (2) :** **NGF expression according to disease severity in cirrhotic patients with pruritus (group 1):**

| Parameter | Mild (N= 6) | Moderate (N= 7) | Severe (N= 4) | Very severe (N= 3) | P-value |
|---|---|---|---|---|---|
| **Spinous layer** **Mean± S.D.** **Median (Range)** | **0.5 ± 0.5** **0.5 (0 – 1)** | **1 ± 0.6** **1 (0 – 2)** | **1.3 ± 0.5** **3 (2 – 3)** | **1± 1** **1 (0 – 2)** | 0 .280 |
| **Basal cell** **Mean± S.D.** **Median (Range)** | **1 ± 0** **1 (1 – 1)** | **1.9 ± 0.4** **2 (1 – 2)** | **2.8 ± 0.5** **3 (2 – 3)** | **2.7± 0.6** **3 (2 –3)** | **0 .001 *** |
| **Epidermis** **Mean± S.D.** **Median (Range)** | **1.5 ± 0.5** **1.5 (1 – 2)** | **2.9 ± 0.7** **3 (2 – 4)** | **4 ± 0** **4 (4 – 4)** | **3.7 ± 0.6** **4 (3 – 4)** | **0 .002*** |
| **Nerves** **Mean± S.D.** **Median (Range)** | **0.17 ± 0.4** **0 (0 – 1)** | **0.43 ± 0.5** **0 (0 – 1)** | **0.5 ± 0.6** **0.5 (0 – 1)** | **0.3 ± 0.6** **0 (0 – 1)** | 0 .705 |
| **Fibroblasts** **Mean± S.D.** **Median (Range)** | **0.8 ± 0.4** **1 (0 – 1)** | **1.3 ± 0.5** **1 (1 – 2)** | **1.5 ± 0.6** **1.5 (1 – 2)** | **1.33± 0.6** **1 (1 – 2)** | 0 .212 |
| **Hair follicle** **Mean± S.D.** **Median (Range)** | **0.3 ± 0.5** **0 (0 – 1)** | **0.6 ± 0.5** **1 (0 – 1)** | **1 ± 0.8** **1 (0 – 2)** | **1.33± 1.16** **2 (0 – 2)** | 0 .293 |
| **Eccrine gland** **Mean± S.D.** **Median (Range)** | **0 ± 0** **0 (0 – 0)** | **0.9 ± 0.7** **1 (0 – 2)** | **1.3 ± 0.9** **1.5 (0 – 2)** | **2 ± 0** **2 (2 – 2)** | **0 .009 *** |
| **Dermis** **Mean± S.D.** **Median (Range)** | **1.3 ± 1.03** **1 (0 – 3)** | **3.1 ± 1.6** **4 (1– 5)** | **4.3 ± 0.9** **4.5 (3 – 5)** | **5 ± 1** **5 (4 – 6)** | **0 .012 **** |
| **Total NGF (epidermis+dermis)** **Mean± S.D.** **Median (Range)** | **2.8 ± 1.2** **3 (1 – 4)** | **6 ± 1.9** **6 (3 – 8)** | **8.3 ± 0.9** **8.5 (7 – 9)** | **8.7± 1.5** **9(7 – 10)** | **< 0.001**** |

**\* P-value was calculated by Kruskal Wallis test\*\* P-value was calculated by One-way ANOVA Test**

**Table(3):** **Correlation between severity score and NGF expression in patients with pruritus (group 1):**

| Parameter | Severity score | |
|---|---|---|
| | **r** | **P-value** |
| **NGF expression** | **0.876** | **< 0.001*** |

**r = Pearson's correlation coefficient          \*Statistically significant**