

Slides were then incubated overnight at room temperature. In the next day the slides were rinsed gently two times with phosphate-buffer saline for 5 minutes and the slides were incubated with anti-mouse IgG biotin for 30 minutes at R.T then washed two times in phosphate-buffered saline for 5 minutes. Detection solution was added for 30 minutes at room temperature, and then slides were washed two times with phosphate-buffered saline for 5 minutes followed by the addition of the diluted liquid DAB for 20 minutes at room temperature. After soaking the tissue in water, it was counterstained with Hematoxylin for 30 sec. Slides washed well in running tap water for 30 sec, then dehydrated by serial alcohols 70%, 95%, 100%, 100% for 3 minutes each time and two times xylene for 5 minutes then mounted with permanent-mounted medium (DPX) and examined under light microscope at 400 magnification. The intensity of reactivity was graded as follows: 0 (absent), + (weak), ++ (moderate), +++ (intense) <sup>(11)</sup>. The Statistical analysis was performed using Fisher exact test.

## Results

**Patient's details:** Thirty five cases were obtained from patients with chronic HCV infection 15 males (60%) and 10 females (40%) and hepatocellular carcinoma 10 males (100%). The mean age of patients with HCV infection was ( $37.6 \pm 13.3$  years) and patients with hepatocellular carcinoma was ( $44.5 \pm 7.8$  years). Histopathological typing for hepatocellular carcinoma revealed that 4 cases (40%) had moderately differentiated adenocarcinoma and 6 cases (60%) had poorly differentiated adenocarcinoma. Normal liver specimens were obtained from thirteen persons 8 males (61.53%) and 5 female (38.46%). The mean age was ( $55.2 \pm 9.2$  years).

**Immunohistochemical staining:** The current results revealed a significant increased in the cellular expression of lymphotoxin  $\alpha$  and their receptor (TLRs) while non significant increased in expression of lymphotoxin  $\beta$  among the 35 investigated diseased liver samples as showed in Tables 1-3 and fig. 1- 3. On the other hand, there was low positive result among control groups.

**Table 1. The Expression of LT-  $\alpha$  in studied groups**

Result of Immunohistochemistry		LT- $\alpha$ Expression	P value
Patients with Chronic HCV infection	Positive	22 (88%)	< 0.001
	Negative	3 (12%)	
	Total	25 (100%)	
HCC	Positive	8 (80%)	0.001
	Negative	2 (20%)	
	Total	10 (100%)	
Control Group	Positive	1 (7.69%)	
	Negative	12 (92.30%)	
	Total	13 (100%)	

**Table 2. The Expression of LT- $\beta$  in studied groups.**

Result of Immunohistochemistry		LT- $\beta$ Expression	P value
Patients with Chronic HCV infection	Positive	21 (84%)	< 0.062
	Negative	4 (16%)	
	Total	25 (100%)	
HCC	Positive	7 (70%)	0.669
	Negative	3 (30%)	
	Total	10 (100%)	
Control Group	Positive	7 (53.84%)	
	Negative	6 (46.15%)	
	Total	13 (100%)	