SUMMARY

HCC is the fifth most common malignancy in the world complicating liver cirrhosis in most cases.

In Egypt, HCC is a common malignancy which develops on top of liver cirrhosis secondary to viral infection, as both hepatitis B and C viruses increased the risk of HCC in Egyptian patients.

The aim of this study was to evaluate the role of chromogranin A as a diagnostic non invasive marker in HCC patients with or without (AFP) elevation in order to add a diagnostic role in patients with low level of (AFP) and suspected to have HCC.

This study was conducted on 80 subjects attending or admitted to Hepatology, Gastroenterology and Infectious diseases department, Benha University Hospital, during the period from April 2009 to April 2010 divided into three groups:

Group 1: 30 patients documented to have HCC on top of liver cirrhosis and diagnosis of them depend on:

1-Focal lesion in abdominal sonography.

2-Inhancement of focal lesion on abdominal triphasic C.T.

3-Typical histopathological findings.

Group 2: 30 patients with liver cirrhosis diagnosed by abdominal sonography.

Group 3: 20 apparently healthy subjects serving as a control group.

The level of AFP and chromogranin A was determined for all cases together with history taking, clinical examination, liver biochemical profile, viral markers, conventional U.S, abdominal triphasic C.T and guided liver biopsy for HCC cases.

There was a statistically highly significant elevation ($p < 0.01$) in the median serum AFP in HCC group (26.5 ng/mL) when compared with control group (2.75 ng/mL) and when compared with cirrhotic group (5.35 ng/ml). Also there was a statistically highly significant elevation ($p<0.01$) in the mean serum CgA in HCC group (71.7 ng/ml) when compared with control group (15.8 ng/ml) and when compared with cirrhotic group (19.5 ng/ml).

There was non significant correlation between AFP and chromograni A, Hb, WBCs, platelets , ALT, alkaline phosphatase, albumin, AST, total bilirubin and direct bilirubin, , creatinine and urea while there was positive significant correlation between AFP and INR.

Also there was non significant correlation between chromogranin A and AFP, Hb, WBCs, platelets , INR, ALT, AST, total bilirubin and direct bilirubin, creatinine and urea. And there was a negative significant correlation between chromogranin A and albumin. While there was a positive significant correlation between chromogranin A and alkaline phosphatase.

Also it was found that when considering cut off value of 7.295 ng/ml (mean ± 2SD), the sensitivity of AFP was (86.7%) and the specificity was (80%) and when considering the cut off value of 28.78 ng/ml (mean ± 2SD) the sensitivity of CgA was (83.3%) and the specificity was (76.7%).

The combined use of the two markers AFP and CgA led to increase in the specificity of AFP and CgA from (80%) and (76.7%) respectively to (83.3%) and increase in the sensitivity of AFP and CgA from (86.7%) and (83.3%) respectively to (90%). This showed that simultaneous measurements of serum AFP and CgA are of value in detecting HCC.