SUMMARY

Determining the presence or absence of clinically significant fibrosis by liver biopsy is essential in deciding protocol of management of patient with liver fibrosis, however, liver biopsy is an invasive procedure with occasional complications, for this reason, a non invasive method for assessing hepatic fibrosis is needed.

This study aimed to evaluate a number of biochemical markers, in comparison to ulatrasonography and liver biopsy.

The present study was conducted on 15 infants and children with chronic liver disease were selected from pediatric hepatology out patient clinic of Benha University Hospital, and 10 normal child served as controls.

All patients were subjected to the following:

1. Full medical history and complete clinical examination.
2. liver function test (ALT, AST, PT).
3. Abdominal and Doppler ultrasound.
4. liver biopsy with histopathological examination.
5. serum fibrosis markers (total bilirubin, GGT, haptoglobin, TIMP 1 and MMP 9).

Our results showed that the ultrasonography is an easy non invasive technique for detection of liver fibrosis but with less diagnostic accuracy. The histological evaluation of fibrosis is important (even in cases diagnosed by ultrasonography) to identify the responsible aetiological factors and the associated parenchymal liver disease.

Also the study revealed the following:

- TIMP 1 is an highly significant marker of both hepatic fibrosis and disease activity.
- MMP 9 was significant in predicting hepatic fibrosis and disease activity.
- Haptoglobin has significant negative relation degree of hepatic fibrosis as well as the disease activity.
- Total bilirubin was found to be significant in predicting hepatic fibrosis and disease activity.
- On the other hand, GGT was found to be non significant in predicting either hepatic fibrosis or disease activity.