A Novel Method For Non-Invasive Diagnosis Of Hepatitis C Virus Using Electromagnetic Signal Detection: A Multicenter International Study

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Abstract: A simple, rapid and non-invasive electromagnetic sensor (C-FAST device) was patented for diagnosis of HCV RNA.

Aim: To test the validity of the device compared to standard HCV PCR.

Subjects and Methods: The first phase was done as pilot in Egypt on 79 participants; the second phase was done in five centers: one center from Egypt, two centers from Pakistan and two centers from India (800, 92 and 113 subjects respectively). The third phase was done nationally as multicenter study on (1600) participants for ensuring its representativeness.

Results: When compared to PCR technique, C-FAST device revealed sensitivity 95% to 100%, specificity 95.5% to 100%, PPV 89.5% to 100%, NPV 95% to 100% and positive likelihood ratios 21.8% to 38.5%.

Conclusion: It is practical evidence that HCV nucleotides emit electromagnetic signals that can be used for its identification. As compared to PCR, C-FAST is an accurate, valid and non-invasive device.

Keywords: C-FAST- a valid and reliable device, distant cellular interaction, electromagnetic signal detection, non-invasive diagnosis of HCV

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