Abstract

The objective: The aim of this study was the investigation of recovering hepatitis C virus (HCV), RNA (Ribonucleic acid) using PCR technique (Polymerase chain reaction) from filter paper (FTA, Flinders Technology Associates), as well as, comparing results of using dried blood spotted samples on filter paper (DBS) with blood samples of the same patients in order to verify the efficiency of using (DBS). Materials and methods: Blood samples were collected from the subjects of this study (fifteen seropositive for anti-HCV patients; volunteers, with age range from 25 to 62 years and five volunteers control who were HCV antibody-negative). 50µl samples finger prick blood were blotted onto filter paper (FTA cards) from each subject allowed to air dry before processing for PCR. Another 5ml venous blood samples were collected from the same subjects (for the comparative study). DBS were stored at room temperature before processing for PCR assay. Results: Results showed that HCV RNA was stable in a dried condition and could be recovered. Comparison of PCR results of blood samples and DBS of the same patients showed complete matching Conclusion: The concept of this study was establishment of a new surveillance tool for molecular techniques i.e. will constitute a significant improvement in the collection of samples in the field and transport, especially from remote areas of the world to centralized laboratories and analysis by nucleic acid amplification techniques even when freezing conditions are not available.

Key words: FTA cards, Hepatitis C virus, RT- PCR, diagnosis

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