

ABSTRACT

Hepatitis C virus (HCV) is an enveloped RNA virus, including in Hepacivirus genus and Flaviviridae family. HCV is a major cause of acute and chronic liver disease, liver cancer, and liver failure. Approximately 3% of the world's population has been infected with HCV. More than 170 million people being carriers of HCV and they are at high risk to develop into liver cirrhosis and / or hepatocellular cancer. In Indonesia, 6.6 to 7 million people suffer from hepatitis C. HCV is transmitted mostly by parenteral including blood transfusion. Therefore, this research aimed to determine the frequency of detectable HCV RNA in blood donors with Anti-HCV positive.

This study is a laboratory experimental research that uses blood donors from PMI as research objects. This study is cross sectional research. The population is the collected blood donor in PMI Tuban East Java and the sample is the August-September 2016 collected blood donor. We undertake sample by purposive sampling. The variables studied were HCV RNA was detected in blood donors with Anti-HCV positive. Blood donor samples have been checked by the Anti-HCV screening of CMIA then rechecked using EIA method. Anti-HCV reactive samples then performed HCV RNA extraction using QIAGEN kit, cDNA synthesis and PCR amplification. Amplification product then visualized by electrophoresis method that uses 0.5x TBE buffer and using a 2% agarose gel containing ethidium bromide, and then do the visualization with Ultra Violet (UV) transiluminator. 100bp DNA marker used ladder. Data were analyzed descriptively.

The results showed three samples of Anti-HCV reactive when examined by the method CMIA (sample number 101,102,103), one sample contain HCV RNA when examined by PCR using the primers HC HC 15-16 and 32-23-34 (sample number 103), and two samples (samples numbers 102 and 103) contain HCV RNA when examined by PCR using primers UTR 3-4.

Keywords: *blood donor, Anti HCV, RNA HCV*