

May 28-29, 2018  
London, UK

J Healthc Commun 2018, Volume 3  
DOI: 10.4172/2472-1654-C1-006

## TOOTH EXTRACTION; IS IT A RISK FACTOR FOR CONTRACTING HCV INFECTION?? A STUDY—TESTING ABS, RNA AND GENOTYPE

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**Background:** The medical risk factors associated with hepatitis C virus (HCV) infection such as, blood transfusion and surgery had been studied in many countries. Up to 40% of patients infected with HCV may have non identifiable routes of viral acquisition and tooth extraction may be one of these risk factors.

**Aim:** To determine the existence of HCV infection and the predominated HCV genotype among subjects with tooth extraction.

**Materials & Methods:** A case-control study involving pregnant women with (case=776) and without (control=2715) history of tooth extraction was carried out. HCV antibodies (anti-HCV) were tested using subsequently third generation enzyme immunoassay (EIA-3) and immunoblot assay (Lia Tek-111). In addition, 94 serum samples were subjected to molecular analysis, using RT-PCR and DNA enzyme immunoassay (DEIA) method for identification of HCV-RNA and genotypes at Sorin Biomedica in

Italy.

**Results:** Anti-HCV seroprevalence was significantly higher (6.3%) among cases of tooth extraction than in the control group (2.63%),  $P=0.00001$ . Tooth extraction was found as a risk factor for HCV infection ( $OR=2.73$ , 95% C.I=1.88–3.9). Positive HCV-RNA was significantly higher (74.6%) among cases than in (38.7%) control group ( $P=0.0016$ ). No significant association was noted between HCV genotypic and the history of tooth extraction. However, HCV-1b genotype showed a higher rate (90%) among the subjects with tooth extraction.

**Conclusion:** Patients with dental extraction were shown to be considered as infected and at a risk of acquiring HCV. Therefore, complete sterilization and cleaning of equipment is highly recommended to avoid HCV transmission via dental extraction.

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