

Prevalence of Hepatitis C in patients visiting Dental OPD at a Tertiary Care Centre: A Hospital Based study

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Abstract

Aim-To know the prevalence of Hepatitis C among patients visiting Dental OPD at Indira Gandhi Institute of Medical Sciences, Patna. **Material and Method**-A retrospective study was conducted in Dental OPD at Indira Gandhi Institute of Medical Sciences, Patna. Data was collected from all the patients undergoing surgical treatment and from patients who had previously been tested for hepatitis elsewhere **Result** -Mean age was 39.64 ± 16.106 years 30% of the subject group were female while 70% were male. On basis of gender, 0 out of 15 females were positive while 2 out of 35 male patients were positive for hepatitis C positive. In our study, the prevalence of hepatitis C was 4% which was statistically insignificant.

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I. Introduction

Hepatitis C virus (HCV) infection is a major public health concern.[1] It is a single stranded ribonucleic acid virus and is the most common cause of post transfusion hepatitis.[2] It is estimated that 200 million people world-wide are infected with HCV.[3] HCV is gradually being recognized as a major health problem in developing countries.[4] World Health Organization estimates that there are 10-24 million

HCV infected persons living in India.[5] The seroprevalence of HCV in apparently healthy people in India ranges from 1.5% to 4%.[6-9] The seroprevalence ranges from 3% to 12% in patients suspected of acute viral hepatitis.[8,10,11]

Certain population groups such as injecting drug users, recipients of unscreened blood products, patients in hemodialysis centers, organ transplant patients and individuals with increased promiscuity tend to have a higher probability of HCV transmission.[4] About 75% of infections are sub clinical and are revealed incidentally by abnormal liver function test and/or seropositivity.[12]

Hepatitis C although not as frequently encountered, has far greater implications for a patient once the patient is infected, as compared to Hepatitis A and B.[13] No undisputed case of HCV saliva transmission has been documented. However, the existence of other routes of transmission is possible. HCV-RNA has been detected in saliva and in salivary glands from patients with sialadenitis [14,15]. Most HCV patients (77%) had higher HCV RNA levels in their gingival sulcus than in their saliva [16,17] found HCV-RNA in toothbrushes by hepatitis C patients. This fact could be a theoretical risk of infection by sharing these objects by their household members. Since dentists are often exposed to saliva and blood field, they are at a higher risk therefore knowledge about the prevalence of Hepatitis C is crucial.

Aim

To know the prevalence of Hepatitis C among patients visiting Dental OPD at Indira Gandhi Institute of Medical Sciences, Patna.

II. Material and Methods

A cross section study was carried out at the Department of Dentistry, Indira Gandhi Institute of Medical Sciences, Patna. The patients undergoing surgical extraction, fracture reduction, surgical excision of cysts or tumour or patients undergoing any surgical procedure requiring blood investigation were included in the study. The patients were explained about the anonymous nature of the study conducted. The patients who agreed to be a part of the study were advised blood investigation including screening for Hepatitis C antigen. Patient who gave positive history of Hepatitis B were also included in the study after their consent.

Inclusion criteria

1. Patients who gave positive history of Hepatitis C
2. Patients undergoing surgical procedures like extraction, fracture reduction, surgical excision of cysts and tumour.
3. Patients who were willing to participate in the study

Exclusion criteria

1. Patients who did not give consent were excluded from the study

III. Results

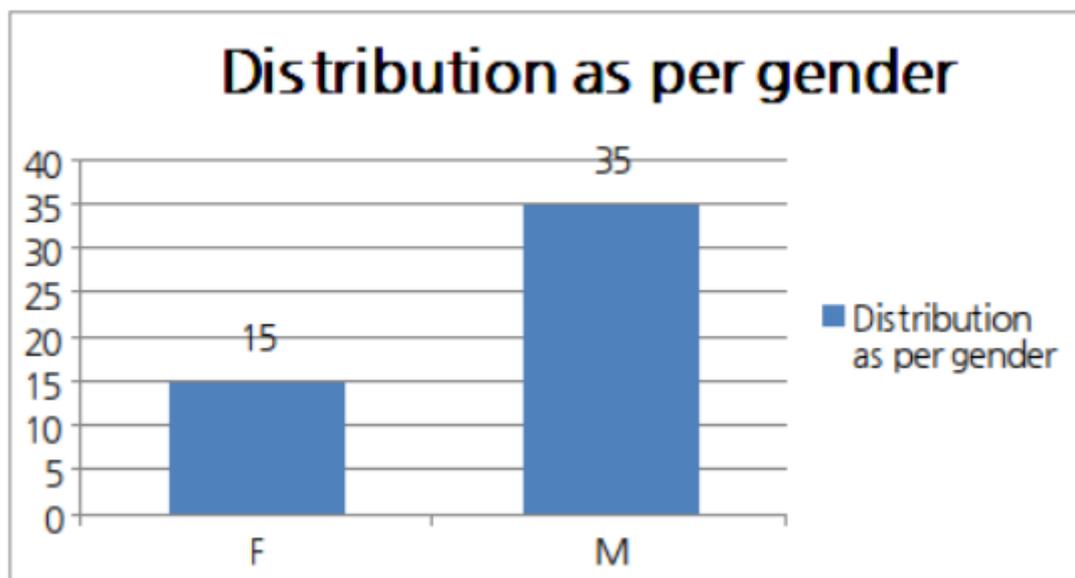
Table showing mean age of the subjects

	N	Minimum	Maximum	Mean	Std. Deviation
Age	50	12	77	39.64	16.106

Mean age was 39.64 ± 16.106 years

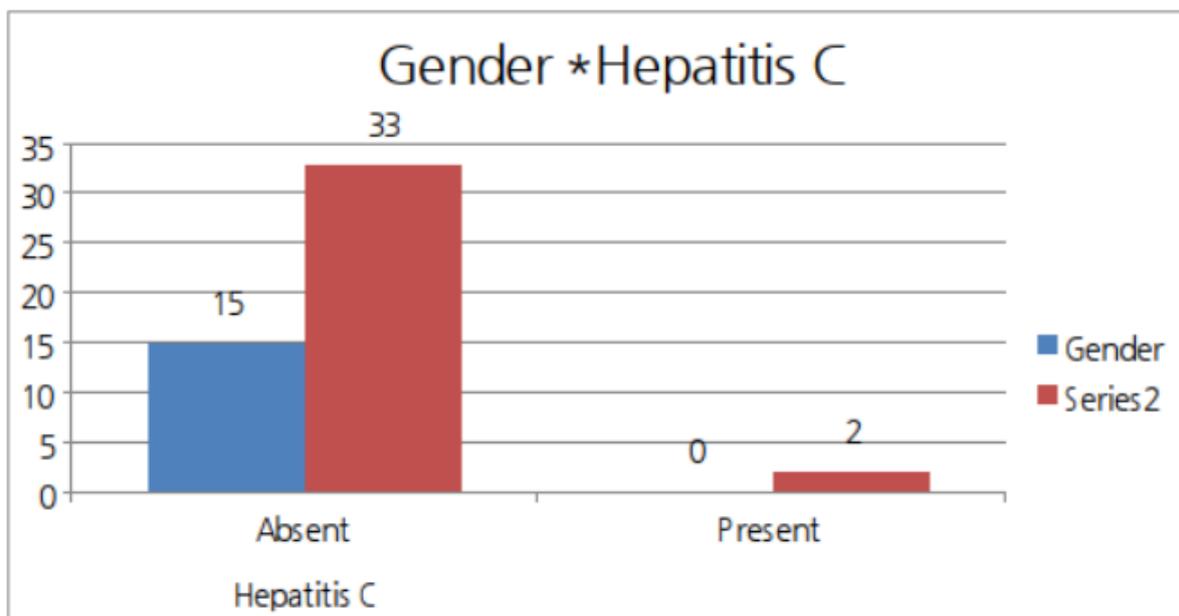
Distribution as per gender

	Frequency	Percent
F	15	30.0
M	35	70.0
Total	50	100.0



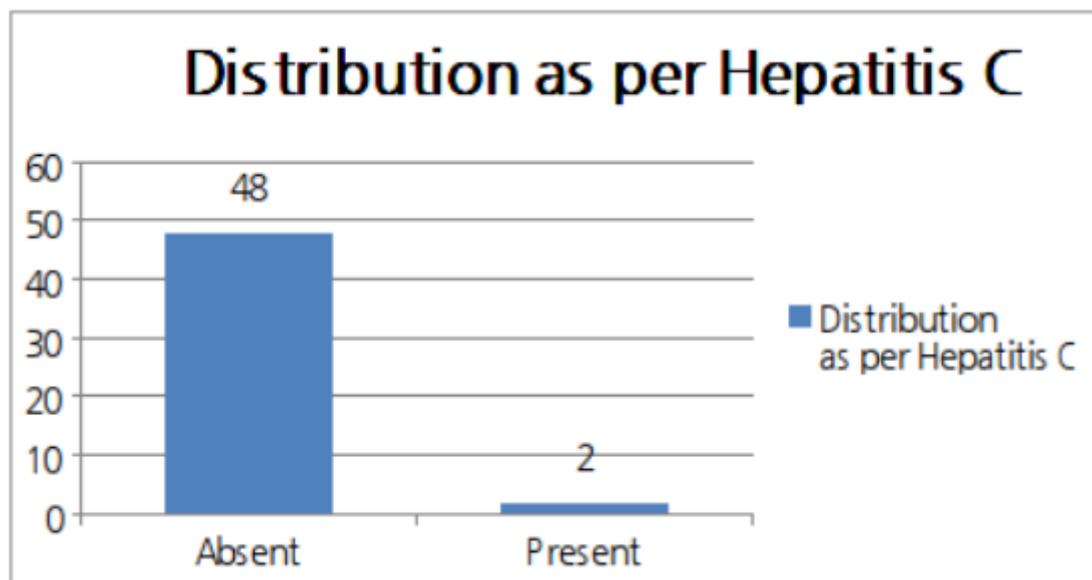
Distribution of Hepatitis C on basis of Gender

		Hepatitis C		Total	Chi square value	p value of Chi square test
		Absent	Present			
Gender	F	15	0	15	0.893	0.345#
	M	33	2	35		
	Total	48	2	50		



Prevalence of Hepatitis C

	Frequency	Percent
Absent	48	96.0
Present	2	4.0
Total	50	100.0



The prevalence of Hepatitis C was statistically non significant ($p > 0.05$)

IV. Discussion

An epidemiological study was conducted at Department of Dentistry, Indira Gandhi Institute of Medical Sciences, Patna. The patients undergoing surgical extraction, fracture reduction, surgical excision of cysts or tumour or patients undergoing any surgical procedure requiring blood investigation were included in the study. The patients were explained about the anonymous nature of the study conducted. The patients who agreed to be a part of the study were advised blood investigation including screening for Hepatitis C antigen. Patient who gave positive history of Hepatitis C were also included in the study after their consent

In our study, 50 patients were included in the study. 30% of the subject group were female while 70% were male. On basis of gender, 0 out of 15 females were positive while 2 out of 35 male patients were positive for hepatitis C positive. In our study, the prevalence of hepatitis C was 4%. The findings of the study were

similar to the study conducted by Sandhu R and Dahiya S where the prevalence of Hepatitis C was 4.62% [18] at Department of Microbiology, BPS Govt. Medical College for Women, Sonapat (Haryana), India. Such low prevalence of Hepatitis C can be attributed to the fact that there is increasing knowledge and awareness among the population. The healthworkers at tertiary care centres are also being trained and educated about the importance of prevention of communicable disorders.

V. Conclusion

Seroprevalence of HCV needs to be monitored in order to record any regional variations. Identification of high risk groups would enable us to work out strategies to decrease transmission rates of the infection. We would also like to identify the prevalence of patients who are co-infected with HIV, Hepatitis B and Hepatitis C. There are very few community based studies which record the prevalence of HCV infection in the general population.

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