

# Incidence of Hepatitis in Pregnant Women

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## ABSTRACT

**Objective:** To study the Incidence of Hepatitis in Pregnant Women

**Study Design:** Retrospective Study

**Place and Duration of Study:** This study was conducted at the Mansehra Teaching Hospital Abbottabad, PAF Hospital Islamabad from 1<sup>st</sup> March, 2018 to 28<sup>th</sup> February, 2020.

**Materials and Methods:** Four hundred reproductive age pregnant females of group from King Abdullah Teaching Hospital Mansehra and PAF Hospital Islamabad were selected by sampling technique were studied at Mansehra teaching hospital Mansehra and PAF Hospital Islamabad.) The permission of Ethical Committee was taken before collection of data and get publishing in medical journal.

**Results:** The incidence of hepatitis was maximum 197 (49.25%) at age group 15-25 years and minimum 12 (3.0%) at age group 37-45 years. The incidence of hepatitis was maximum 220 (55%) in District Mansehra & was 180 (45%) in District Sialkot respectively. The incidence of hepatitis was maximum 190 (47.5%) in Low class of pregnant women & minimum 70 (17.5%) in high gentry of pregnant women. The incidence of hepatitis was maximum at 2<sup>nd</sup> trimester 170 (42.5%) & minimum at 1<sup>st</sup> trimester 102 (25.5%). The frequency subjected to ALT & ICT was maximum 175 (43.75%) in discarded after initial testing & was minimum 15 (3.75%) in repeated after 4 weeks. The incidence of hepatitis was maximum at initial screening by ICT positive patients 70 (17.5%) & negative patients 330 (85.5%). The incidence of hepatitis was maximum 80 (50.63%) every 5<sup>th</sup> sample -ve for HCV by ICT, was minimum 30 (7.5%) sample with high ALT of ELISA tests for HCV antibodies. The incidence of hepatitis C patients was 297 (74.25%) & Hepatitis B Patients was 103 (25.75%) respectively.

**Conclusion:** Seroprevalence of HCV in pregnant females of District Mansehra & District Sialkot different from the figures already reported from the other parts of Pakistan.

**Key Words:** Hepatitis C & B, Chronic liver disease, Seroprevalence

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## INTRODUCTION

From very long period contamination may be go with by thickening and scarring of connective tissue and lead to degeneration of cells, inflammation, and fibrous thickening of tissue.

Inflammation of liver type C & B virus is a one of the causes of contamination of liver. It is a single grounded Ribo Nuclie Acid virus of the Flaviviridae family. It shows an estimated one hundred seventy million persons internationally, three percent of the world's

people (World Health Organization estimates) and three to forty lakhs of newly contaminated people every year.<sup>1,2</sup> It was seen in Nineteen hundred eighty nine.<sup>3</sup> In spite its large socio economic difference, there is nothing a substance used to stimulate the production of antibodies not much more side effect free treatment against the virus. Hepatitis C Virus contamination is a leading cause of chronic inflammation of liver, liver chronic disease of the liver marked by degeneration of cells and cell of liver carcinoma internationally.<sup>4,5</sup> Contamination with inflammation of liver type C Virus is found in thirty to fifty percent of persons infected with human immunodeficiency virus, human immunodeficiency virus contamination leads to more early growth of chronic hepatitis C to degeneration of cells, inflammation, and fibrous thickening of tissue.<sup>6</sup> Hepatitis C & B virus is transferred through blood contact.<sup>7,8,9</sup>

Hepatitis C & B virus has become much more public health problem and is incidence in many countries including Pakistan. Hepatitis C virus contamination starts mostly without clinical symptoms and leads in the most of sick persons (seventy to eighty percent) to resistant virus in blood and chronic Hepatitis including a chronic disease of the liver marked by degeneration of cells, inflammation, and fibrous thickening of tissue

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and liver cell cancer.<sup>10</sup> Recent work has been done to determine the incidence of serum of hepatitis C & B in the pregnant women of District Mansehra and District Islamabad.

The measured internationally prevalence of Hepatitis C virus contamination was two point two percent, resembling to about one hundred and thirty millions Hepatitis C virus -positive sick persons world wide.<sup>11</sup> The lowest incidence (zero point zero one to zero point one percent) has been seen from countries in the United Kingdom and Scandinavia; the Highest incidence (fifteen to twenty percent) has been found from Egypt.<sup>10</sup> an estimated twenty seven percent of cirrhosis and 25% of Liver cell carcinoma internationally occur in Hepatitis C virus contaminated people.<sup>11</sup> there are both geographical and temporal differences in the sick persons of Hepatitis C virus contamination.<sup>12</sup>

## MATERIALS AND METHODS

Four hundred reproductive age pregnant females of group from King Abdullah Teaching Hospital Mansehra, and PAF Hospital Islamabad were selected by sampling technique were studied from 1<sup>st</sup> March, 2018 to 28<sup>th</sup> February, 2020 at Mansehra teaching hospital Mansehra, and PAF Hospital Islamabad). The permission of Ethical Committee was taken before collection of data and get publishing in medical journal.

## RESULTS

**Table No.1: Age distribution of hepatitis**

Age Group (years)	No. of patients	Percentage
15–25	197	49.25
26–35	191	47.75
37–45	12	03.0
Total	400	100%

The incidence of hepatitis was maximum 197 (49.25%) at age group 15-25 years and minimum 12 (3.0%) at age group 37-45 years as shown in table 1.

**Table No.2: District wise distribution of patients of hepatitis**

District	No. of patients	Percentage
Mansehra	200	50
Sialkot	150	37.5
Islamabad	50	12.5
Total	400	100

**Table No.3: Distribution of patients of hepatitis according to socio-economic status (n=400)**

socio-economic status	Number	Percentage
High	70	17.5
Middle	140	35
Low	190	47.5
Total	400	100%

The incidence of hepatitis was maximum 200 (50%) in District Mansehra & was 150 (37.5%) in District

Sialkot and Islamabad 50 (12.5%) respectively as shown in table 2.

The incidence of hepatitis was maximum was maximum 190 (47.5%) in Low class of pregnant women & minimum 70 (17.5%) in high gentry of pregnant women as shown in table 3.

**Table No.4: Gestational Period distribution (n=400)**

Trimester	Number	Percentage
1 <sup>st</sup> (0–3 Month)	102	25.5
2 <sup>nd</sup> (4–6 Month)	170	42.5
3 <sup>rd</sup> (7–9 Month)	128	32.0
Total	400	100%

The incidence of hepatitis was maximum at 2<sup>nd</sup> trimester 170 (42.5%) & minimum at 1<sup>st</sup> trimester 102 (25.5%) as shown in table 4.

**Table No.5: Frequencies according to ALT and ICT**

Category	Number	Percentage
Initial testing	400	100
Discarded after initial testing	175	43.75
Retained every 5 <sup>th</sup> sample	63	15.75
Repeated after 04 wks	15	3.75
Positive by ICT	80	20.0
Raised serum ALT	67	16.75
Total	400	100%

The frequency subjected to ALT & ICT was maximum 175 (43.75%) in discarded after initial testing & was minimum 15 (3.75%) in repeated after 4 weeks as shown in table 5.

**Table No.6: Distribution Results of initial screening by ICT**

Positive		Negative	
Patients	% age	Patients	Percentage
70	17.5	330	82.5
Total		400	100%

**Table No.7: Results of enzyme-linked immunosorbent assay tests for hepatitis C antibodies (n=158)**

Group	Tested	Positive		Negative	
		Patients	%	Patients	%
HCV positive by ICT method	48	43	89.5	05	30.37
Samples with high ALT	30	0	0.0	30	7.5
Every 5 <sup>th</sup> sample	80	0	0.0	80	50.63
-ve for HCV by ICT					
Total	158	43	---	115	---

The incidence of hepatitis was maximum at initial screening by ICT positive patients 70 (17.5%) & negative patients 330 (85.5%) as shown in table 6.

The incidence of hepatitis was maximum 80 (50.63%) every 5<sup>th</sup> sample -ve for HCV by ICT, was minimum 30 (7.5%) sample with high ALT of ELISA tests for HCV antibodies as shown in table 7.

**Table No. 8: Hepatitis C & B distribution**

Category of hepatitis	Patients	Percentage
Hepatitis C	297	74.25
Hepatitis B	103	25.75
Total	400	100

The incidence of hepatitis C patients was 297 (74.25%) & Hepatitis B Patients was 103 (25.75%) respectively as shown in table 7.

## DISCUSSION

Inflammation of liver type C contamination is a national health issue. As the contamination is mostly severe, people based branch of medicine which deals with the incidence, distribution, and control of diseases works have been done in different parts of the world including Pakistan to measure its prevalence and develop stopping methods. The level of a pathogen in a population, as measured in blood serum of Hepatitis C virus contamination was found to be one point eight percent corresponding to about three point nine million persons in the United States of America.<sup>12</sup>

Prevalence of inflammation of liver type C virus in mothers and children was seen to be nine point thirty five percent and four point zero nine percent in a work done at Lahore.<sup>18</sup> Mother to infant transfer of Hepatitis C virus contamination works at Karachi revealed sixteen point five percent suggesting mothers positive for Hepatitis C virus.<sup>13</sup> These results are different from those of this work.

A study done on thalassaemic children showed thirty six point twenty five percent positive in serum of anti Hepatitis C virus antibodies which increased with the of blood given number. Different the level of a pathogen in a population, as measured in blood serum level were seen in the different groups of religion.<sup>14</sup> the level of a pathogen in a population, as measured in blood serum of Hepatitis C virus was six point three percent in prisoners.

The level of a pathogen in a population, as measured in blood serum of Hepatitis C virus was also founded in healthy looking persons. Blood donating person put out prior to blood donating showed one point one percent positivity of anti Hepatitis C virus antibodies.<sup>22</sup> A similar work done on adolescent before to put out in Armed Forces showed three point sixty nine percent serum positive of anti Hepatitis C virus.<sup>15</sup>

The level micro organism in a people, as measured in blood serum of Hepatitis C virus contamination in general people was measured at five point three

percent<sup>18</sup>. So the rate of false positive by Information and Communication Technologies was ten point forty one percent. More works on large samples are required to further study this, as it was more the importance of the recent work.<sup>19,20</sup>

## CONCLUSION

Seroprevalence of HCV in pregnant females of District Mansehra & District Sialkot different from the figures already reported from the other parts of Pakistan.

### Author's Contribution:

Concept & Design of Study: Qamoos Razaq  
 Drafting: Major Asiya Yaqoob, Asma Liaqat  
 Data Analysis: Umra Imran  
 Revisiting Critically: Qamoos Razaq, Major Asiya Yaqoob  
 Final Approval of version: Qamoos Razaq

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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