Hepatits C Virus Prevalence Among Pregnant Women Living With Hiv/Aids Attending Clinic at Uga, Anambra State, Nigeria

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ABSTRACT

The study was undertaken to investigate the Hepatits C virus among pregnant women living with HIV/AIDs attending clinic at Uga Aguata. In line with the objectives of the study, two research questions were postulated. Descriptive survey design was used for the study. The population of the study comprised of 50 patients attending clinic at Uga Aguata studied between May 2019 and September 2019. The main instrument used for data collection was structured questionnaires. Samples were screened for hepatitis C viral infection using the rapid one step hepatitis C virus test strip. Those aged 31-40years recorded a higher prevalence of 40% than those in the age group 20-30. The interaction between HIV and hepatitis C affects the transmission and natural history of hepatitis C. People who do not receive HIV treatment are less likely to spontaneously clear their hepatitis infection and have higher hepatitis viral loads and experience more rapid hepatitis disease progression than HIV- negative people. They may also belong to group that are criminalized and stigmatized meaning they are likely to experience barriers to accessing health services. Sexual transmission of HCV is increased by indulging in high risk sexual practices such as men who have sex with men and presence of sexually transmitted diseases.

Keyword: - *Hepatitis, virus, HIV, AIDs and Pregnant ….*

1. INTRODUCTION

Hepatitis C infection is an infection of the liver caused by the Hepatitis C Virus (HCV). HCV is one of several viruses that can cause hepatitis. Hepatitis means inflammation of the liver [1]. It is unrelated to other common hepatitis viruses for example hepatitis A or Hepatitis B. In Nigeria, genotype 1 is the most common form of HCV. Even within a single genotype they may be some variations (genotype 1a and 1b for example) genotyping is important to guide treatment because some viral genotype respond better to therapy than other [2].
The genetic diversity of HCV is one reason that it has been difficult to develop an effective vaccine since the vaccine must protect against all genotypes. Various factors has been associated with major routes of HCV transmission to include sexual transmission [3], mother to child transmission [4] and household exposure [5]. While transmission from mother to child has ranged between 4% to 8%, HIV infected mothers has 17–25% chance of Hepatitis C virus transmission [6].

It is difficult for the human immune system to eliminate HCV from the body and infection with HCV usually becomes chronic. Chronic infection with HCV damages the liver and can cause liver failure. Up to 85% of newly infected people fail to eliminate the virus and become chronically infected. Infection is most commonly detected among people who are 40 to 60years of age, reflecting the high rates of infection in the 1970s and 1980s. There are 8,000 to 10,000 deaths each year in the U.S. related to HCV infection. Rao et al [7] reported the prevalence of HCV in the rage of 1.4% for women aged 20 - 35 years old and 11.1% for women aged under 20 years old.

HCV infection is the leading cause of liver transplantation in the U.S. and is a risk factor for liver cancer. Most if the signs and symptoms of HCV infection relate to the liver are generally mild and vague including a decreased appetite, fatigue, nausea, fever, headache, muscle or joint pains and weight loss [8]. HCV infection can cause the

body to produce unusual antibodies called cryoglobulins, this cryoglobulins cause inflammation of the arteries (vasculities) which may damage the skin, joints and kidney. Two skin conditions lichen planus and porphyries cutaneatarda have been associated with chronic infection with HCV. HCV also is associated with Bcell lymphoma, a cancer of the lymph system. The two most basic antibody evaluation strategies are called enzyme-linked immunosorbent assay and recombinant ImmunoBlot assay. Viral load tests measure the amount HCV hereditary material is available in the blood, the two most normal viral load tests are called polymerase chain reaction and deoxyribonucleic acid [9].

Mutagoma etal [5] assessed Hepatitis B virus and HIV co-infection among pregnant women in Rwanda and found HCV as a public health problem in pregnant women. Ejeta & Dabsu [10] examined the prevalence of Hepatitis C Virus and HIV co-infection Among Pregnant Women in Western Ethiopia and found that the overall sero-prevalence of HCV of 8.1% and HIV at 1.0%. Demir, etal [11] conducted another study on HIV/hepatitis C virus co-infection among adults in Malawi, they viewed HCV infection as a cause of liver-related illness. Oladeinde et al [12] studied the prevalence of HIV, HBV, and HCV infections among pregnant women in Benin City, Nigeria and established that the prevalence of HIVand HCV infections were 7.2% and 0.8% respectively.

Obviously, existing studies have described different aspect of either HIV and HCV infections and transmission among pregnant mother. However, the burden of HCV infection among pregnant women is unknown in Uga, Aguata LGA. Hence the researcher was motivated to critically look into the infection rate of HIV/HCV especially among pregnant women attending clinic in Uga, Aguata so as to create opportunities for HCV infection screening in all HIV- infected patients and proper implementation of public health education and counseling which are essential to reduce the dangers of HIV/HCV infections.

2. RESEARCH QUESTIONS
The following research questions were posited to guide the study:
  i. What are the prevalence and symptoms of hepatitis C virus in pregnant women attending antenatal in Uga Aguata Local Government Area?
  ii. What are the prevalence and symptoms of hepatitis C virus in people living with HIV and AIDs attending antenatal in Agu Aguata Local Government Area?

3. MATERIAL AND METHODS

Descriptive survey research design was used for the study. This design was considered appropriate for the study because it involved a fraction of the population that has the same characteristic. The accessible population for the study consisted of 50 pregnant women and PLWHA attending clinic at Uga Aguata. Stratified random selection of patients attending comprehensive care centre at Uga hospital was employed. The main instrument used for data collection was structured questionnaires. The questionnaire was in two sections. Section A contained questions on background information of the respondents while section B also contained questions on hepatitis C virus among pregnant women living with HIV/AIDs. The instrument was submitted to two medical doctors in Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi for correction and validation; all their corrections were adequately effected in restructuring the instrument. Reliability of the instrument was established exposing the structured questionnaire twice for reliability using test-retest method, for non-participating pregnant women attending clinic at Amesi Aguata. After fourteen days a retest with the same but fresh copies of the instrument were made. Fifty (50) copies of the questionnaire administered were returned and used for data analysis using the frequency distribution table, simple percentage method.

4. RESULTS AND DISCUSSION

Results of the data analysis are shown in tables 1 & 2.
Research Question 1: What are the prevalence and symptoms of hepatitis C virus in pregnant women attending antennal?

Table 1: Responses on prevalence and symptoms of hepatitis virus in pregnant women attending antennal

S/N	Items	SA	A	UD	D	SD	X	Decision
1	Beneficial effect on long term progression of tibrosis.	30 (150)	20 (80)	-	-	-	4.6	Accepted
2	Increased risk for pregnancy complication	27 (135)	23 (92)	-	-	-	4.5	Accepted
3	Increased risk for gestational.	30 (150)	20 (80)	-	-	-	4.6	Accepted
	Grand Total						4.56	

Table 1 with a grand mean of 4.56 indicates the prevalence and symptoms of hepatitis C virus in married and single pregnant women attending antenatal in Uga, Aguata are beneficial effect on long-term progression of fibrosis, increased risk for pregnancy complications and increased risk for gestational.

Research Question 2: What are the prevalence and symptoms of hepatitis C virus in people living with HIV/AIDs attending antennal?

Table 2: Responses on prevalence and symptoms of hepatitis C virus in people living with HIV/AIDs attending antennal

S/N	Items	SA	A	UD	D	SD	X	Decision
1	Increased risk end stage liver disease.	23 (115)	27 (108)	-	-	-	4.46	Accepted
2	Increased risk of diabetes mellitus.	30 (150)	20 (80)	-	-	-	4.5	Accepted
3	Increased risk of kidney disease.	28 (140)	22 (88)	-	-	-	4.56	Accepted
	Grand Total						4.54	

Table 2 with a grand mean of 4.54 indicates the prevalence and symptoms of hepatitis C virus in married and single people living with HIV and AIDs attending antenatal in Uga, Aguata are increased risk end-stage liver disease, increased risk of diabetes mellitus and increased risk of kidney disease.

5. DISCUSSION

The objective of the present study was to assess hepatitis C virus prevalence among pregnant women living with HIV/AIDs attending clinic at Uga, there were obvious indication that some of these women living with HIV/AIDs has symptoms of hepatitis C virus. This condition has a significant long-term effect on progression of fibrosis, increased risk for pregnancy complications and increased risk for gestational. This outcome is related to the findings of Oladeinde et al [12] who upheld that there is significant cover between hepatitis C and HIV, as both blood-borne infections can be transmitted in comparable manners. It is evaluated that 6.2% of individuals living with HIV additionally give indications of past or present hepatitis C disease [9]. This identified association among HIV and hepatitis C influences the transmission and characteristic history of hepatitis C. People who don't get HIV treatment are less inclined to immediately clear their hepatitis contamination, have higher hepatitis viral loads and experience more fast hepatitis illness movement than HIV-pessimistic individuals [11].

Also, the prevalence and symptoms of hepatitis C virus in people living with HIV and AIDs attending antenatal in Uga, Aguata are increased risk end-stage liver disease, increased risk of diabetes mellitus and increased risk of kidney disease. Exclusively, HIV and HCV cause ceaseless conditions. Be that as it may, in co-contamination states, they may prompt perilous and lethal conditions particularly during pregnancy where there is a high danger of maternal intricacies and vertical transmission which is related with fetal and neonatal hepatitis [6].

6. CONCLUSION

Based on the findings, the following conclusions were drawn:

HCV prevalence in different parts of the world is masked by marked differences based on the route through which HIV was acquired. Intravenous drug use is the most efficient transmission route of HCV. HCV is less likely transmitted by sexual means which accounts for the majority of HIV transmission in Nigeria and most other parts of the world. A study done among heterosexual couples followed prospectively over many years, established that HCV is not readily spread via heterosexual sexual transmission. Sexual transmission of HCV is increased by indulging in high risk sexual practices such as men who have sex with men and presence of sexually transmitted diseases [13].

7. RECOMMENDATIONS

Based on the findings and conclusion, the following recommendations were made:
1. All pregnant women with chronic HCV infection should be assessed for antiviral treatment. Who recommends offering treatment to all individuals diagnosed with HCV infection who are 12years of age or older irrespective of disease stage.

The results can be used to sensitize health care providers on the importance of assessing for sex related and other risks associated with HCV acquisition among HIV/AIDs patients at initial diagnosis of HIV.

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