Hepatitis C Infection among Intravenous Drug Users. "A Silent Disease in an Invisible Population"

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INTRODUCTION

Hepatitis C is considered to be a major health issue globally. 5 Viral families are known to cause hepatitis and are labelled as: A, B, C, D and E. Hepatitis B (HBV) and hepatitis C (HCV) are the most common viral hepatitis infections transmitted through the risky behaviors that drug users often engage in. (NIH, 2016).

The global prevalence of anti-HCV was estimated at 2.0% (1.7–2.3%) among adults and 1.6% (1.3–2.1%) for all ages corresponding to 104 (87–124) million and 115 (92–149) million infections, respectively. Some parts of the world like Southern and Eastern Europe, Japan, and Africa have very high prevalence rates above 1.5%. The viraemic prevalence was 1.4% (1.2–1.7%) among adults and 1.1% (0.9–1.4%) in all ages corresponding to 75 (62–89) million and 80 (64–103), respectively. (Gower et al 2014). It continues to grow with an estimate of 170 million people infected in 2015. (Webster, 2015). According to the WHO between 350000 and 500000 people die every year from hepatitis C and related liver disease. (WHO, 2014).

The World health Organization (WHO) efforts are to be applauded, where they have declared the 28th of July of each year as hepatitis awareness day, raising awareness, promoting partnerships and mobilizing resources; formulating evidence-based policy and data for action; preventing transmission; and executing screening, care and treatment. (WHO, 2014).

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Hepatitis C infection occurs when blood or other body fuids from an infected person enter the body of an uninfected person. Hence, as a blood borne infection, the virus is spread through one of these ways:

- Injection drug use and unsafe behaviors like sharing infected needles or injection paraphernalia and inadequate sterilization of medical equipment.
- Organ transplants and Blood transfusions. (Screening of the blood supply for HCV began in 1992).
- Outbreaks. (Uncommon but known as a recognized risk).
- Another recognized risk is having a sexually transmitted disease (STD) or HIV. Sex with multiple partners, or rough sex also increases the risk. Tattoos and body piercings in informal settings or the use of non-sterile instruments can spread the infection. Some people just can't be sure of how or when they got infected. (CDC, 2013).
- In pregnancy though mother to baby transmission.

The IDUs face other comorbid disorders like mental illness, and downward social drift and require coordinated response from multiple agencies. This highlights the importance of closing the addiction treatment gap and offer treatment and rehabilitation from drug misuse/abuse especially opioid addiction, since there is good evidence that treating those patients with opioid assisted therapy (Methadone/Suboxone) improves the outcome of treatment of their HCV infection. (Bruce. et al, 2013). It is estimated that each IDU patient infected with HCV is likely to infect about 20 others. This rapid transmission of the disease occurs within the frst three years of initial infection (Magiorkinis, et al. 2013).

TIME LINE

<u>1970</u>: NIH, USA researchers described post transfusion hepatitis as non- A non- B hepatitis (NANBH) as they were not due to the known Hepatitis A or B viruses.

<u>1987</u>: collaboration between Chiron and CDC in USA led to the identifcation of the organism and development of a diagnostic test.

<u>1988</u>: presence of the virus in NANBH panel specimens confrmed at the NIH. (Boyer, 2001)

<u>1989</u>: Hepatitis C virus (HCV) was described as a cause of post transfusion hepatitis.

<u>1991</u>: Complete HCV genomic sequence identifed and conception of hybridization probes and primers to amplify viral genome by polymerase chain reaction (PCR). (Choo et al., 1991)

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(antibodies to HCV) or a viral antigen (HCVcAg). They are based on the immunoassay principle, and are availaveF,

Standard treatment regimen included, Interferon and Ribavirin, and they used to be the mainstay against most genotypes i.e., pan-genotypic. Poor tolerance is a well-known nuisance of Interferon and extreme depressed mood was something that generations of patients had to endure. The new antiviral drugs have certainly demonstrated better efficacy, tolerability and safety profiles. They are called DDAs (oral directly acting antiviral agents). Access to DDAs is still limited due to their high prices.

We need to accept that Antiviral treatment is successful in 50 to over 100% of patients treated, depending on the treatment used. Treatment also been shown to reduce the development of liver cancer and cirrhosis, according to the World Health Organization. (WHO, 2014).

CONCLUSION

Persons infected with HCV are currently looking at some promising and clear breakthroughs in the battle to diagnose, control and cure this disease. Systematic and dedicated research has been rewarded with the development of many new antiviral drugs improving the odds of living with hepatitis C just like it had with chronic diseases like HIV and many cancers.

Intravenous drug users "the invisible population", stand to benefit from these developments like the rest of the population. These patients needs to adopt a positive view of the situation, maintain their motivation to get treatment and tap into the available resources of personal strength, family and friends and support groups. More research is needed in areas of early detection and prevention and the availability of new drugs to a wider population, especially in the developing world.

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