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Syed Wasif Gillani, Syed Azhar Syed Sulaiman

Corresponding author: wasifgillani@gmail.com

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Syed Wasif Gillani

School of Pharmaceutical Sciences
Universiti Sains Malaysia (USM)
Pulau Penang, Malaysia
Email: wasifgillani@gmail.com

Assoc. Prof. Syed Azhar Syed Sulaiman

School of Pharmaceutical Sciences
Universiti Sains Malaysia (USM)
Pulau Penang, Malaysia
Email: sazhar@usm.my

Abstract

Background: The authors sought to identify the prevalence of blood-borne chronic infections and determine the appropriate management therapy setting among the drug addicts of methadone maintenance treatment (MMT) program. The purpose to identify such factor is to know the quality of health of respondents active to MMT program and possibly predict the risk reduction of relapse during the treatment.

Methodology: As it was known that government of Malaysia allowed MMT on large scale at 2005, so a year retrospective with six months prospective study (from Jan 2007 to May 2008) was conducted in three methadone clinics of Pinang state, Malaysia. All the registered patients were included in the study and data was collected through special design data collection form by reviewing the medical profiles.

Results: Findings showed HIV/AIDS was found in 2.3%, HCV 76.3%, HBV 3.3%, while 37.7% respondents were identified impaired liver function. The risk combination was HCV with impaired liver function identified in 39.5% respondents. None of them receives any supportive management treatment for the current chronic infectious condition.

Conclusion: This study highly recommends producing necessary resources for the management treatment of Drug addicts for such chronic infection, as further delay can possibly increase the risk to transmit the infection in the society.

Keywords: Blood-borne infection, Drug abuse, Addiction, MMT, Drug abuse and infections.

Introduction

Malaysia was declared as the fifth fastest increasing infection rate in the Asia-pacific region (UNAIDS, 2003). In context to make the country a drug – free society 2015 vision was created (Sattler, 2004), so to ensure the time being harm reduction in term of treatment and educational settings a lot of researches were done on such topic (Mazlan, 2007; Muhaamda Mazlan, 2006; Reid, 2007; Viknasingam, B et al., 2007 and Viknasingam, B ., Navaratnam,

V, 2006 etc..). Such studies were mainly emphasize on the risk assessment of sexually transmitted infections as well as blood-borne infection among drug addicts.

Hepatitis C is the most common blood-borne infection among the drug addicts, mainly 65% to 90% prevalence rate was found among the venipuncture drug abusers (CDC, 1998; Hangan, H et al., 2001; Garfein, RS et al., 1998; Rezza, G et al., 1996). A majority of persons who infected with hepatitis C virus will developed chronic active hepatitis and also infected others; about one-fifth of infected respondents will develop cirrhosis or hepatocellular carcinoma if they do not receive intervention (CDC, 1998).

The Aims of this study was to evaluate the prevalence of chronic infections among the treatment seeking Drug addicts as well as the supportive therapy plan for treatment of chronic infections. As Quality of Health among the methadone receiving respondents was a important factor pertaining to relapse or drop-out.

Methodology

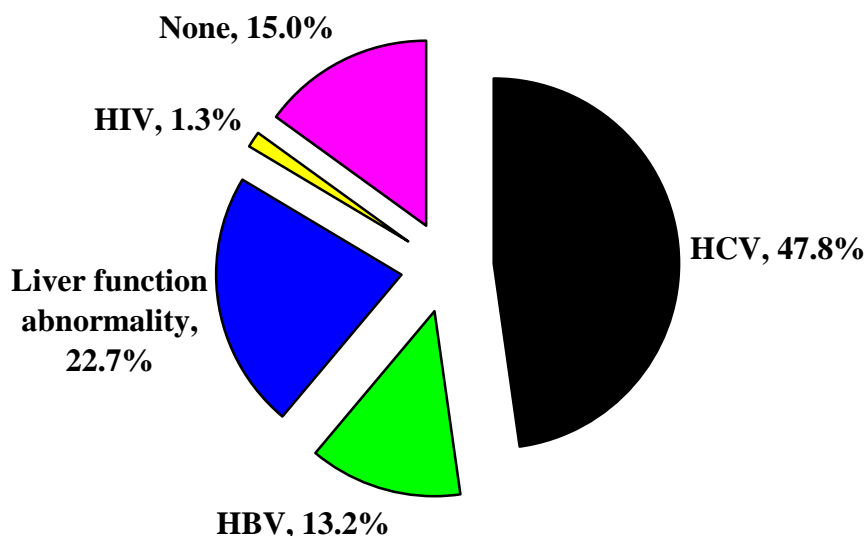
All of three registered methadone clinics of Penang state, Malaysia were selected to identify the infection risk and therapy management for such medical condition. A year retrospective (Jan 2007 to Dec 2007) with six month prospective (jan 2008 to may 2008) study was designed to collect the necessary information from the methadone clinics. All the respondents registered to methadone during this mentioned period was included in the study while exception was made on those being defaulted or drop-out from the methadone program.

A self designed data collection form was used to collect the information from the medical profiles of MMT patients. Microbiological and pathological lab reports were viewed in account to identify the prevalence rate among such group. While medical profile was thoroughly reviewed to ensure the instruction regarding the treatment plan setting for the chronic infections found among the methadone receiving out-patients.

A descriptive statistical report was generated after the complete analysis of data collected from the methadone centers. All the analysis was made through the statistical software (SPSS) version 13.0.

Results & Findings

The baseline data regarding the prevalence rate of chronic infections among drug addicts (graph 1) showed the increased rate of Hepatitis C (HCV) infection 47.8%, as compared to 1.3% HIV/AIDS, but alarming risk showed the increased number of impaired liver function to 22.7%. Hepatitis B (HBV) is also figured in increasing trend of infection 13.2%.



Graph 1: Baseline data on the chronic infections among drug addicts

Clinical features are tabulated in the term of outcomes of methadone maintenance treatment program (table 1). The information showed the increased pattern of HCV among the Methadone maintenance treatment out-patients. Results reflect the increase risk of Hepatitis C infection with the increased cases of impaired liver function. While Hepatitis B surface Antigen (HBsAg) also found in reactive state and affected about 3.3% of respondents in the study.

Table 1: Clinical features associated with outcomes of chronic diseases

Chronic diseases	Before MMT			During MMT 3 consecutive (+) results. N (%)
	Test	Results	N (%)	
HIV / AIDS	Wester Blot	Anti-HIV (+)	5 (2.3)	No further test
HCV	Anti-HCV particle agglutination	Anti-HCV (reactive)	164 (76.3)	164 (76.3)
HBV	Hepatitis B surface antigen	HBsAg (reactive)	7 (3.3)	(7 (3.3)
Liver function	Liver function test (LFT)	↑ ALT/AST ↓ albumin/bilirubin Or both.	91 (42.3)	81 (37.7)

When the information was more profound to the combination and pattern of infection, the findings showed the highest risk with Hepatitis C and liver impaired function combination. While it is observed that almost more than 80% of the respondents of the study are directly or in combination infected with the chronic stage of Hepatitis C infection (table 2).

It is noted that there is a past identified tuberculosis case was reported in the study. It is not sure to say anything at this level of assessment because no diagnosis for such diseases was made before or during the treatment with methadone. Although this is a real fact showed that Lungs infections are at high risk with persons on smoking or smoking drugs. Although no laboratory tests were recommended for identifying the chest infections.

Table 2: Frequency and combination of chronic diseases among MMT out-patients

Chronic diseases	N (%)
HBV	1 (0.5)
HCV	67 (31.2)
Abnormal liver function (ALF)	3 (1.4)
HCV + ALF	85 (39.5)
HIV + HCV + ALF	2 (0.9)
HIV + HCV	3 (1.4)
HCV + HBV	6 (2.8)
HCV + Pulmonary tuberculosis + ALF	1 (0.5)
Total	168 (78.1)
None	47 (21.9)

Discussion

Hepatitis C is a infection commonly found among IVDU's in quiet high proportions. From national to internal study findings showed that the 80 – 90% is the prevalence rate of HCV in IVUDs and mostly were on the risk of HIV/AIDS also in a condition to spread the infection (CDC, 2005; Marek C et al., 2005; Weaver M.F, Cropssey K.L, Fox S.A, 2005). Our findings showed somewhat similar findings as; 76.3% were HCV positive, 2.3% HIV/AIDS positive, 3.3% HBV and 37.7% with impaired liver function MMT patients were identified.

The pattern of combination showed that HCV was predominantly found with other three major medical diseases. Overall 78.1% of MMT patients were on the chronic infections in the MMT program of Penang state. These findings were similar with the study findings of Marek C et al., 2005 in Malaysia; his findings also identified about 15.7% radiological evidences of pulmonary tuberculosis among the MMT patients. While in our studies we observed one case of pulmonary tuberculosis with HCV and this case was identified earlier before initiated with MMT program. May be our respondents also had high prevalence of PTB but not identified because no radiological test were performed in MMT program.

The issue pertaining to this section of discussion was to analyze the supportive therapy offered to MMT patients for these chronic infections. Unpredictable results were found in

accordance to this issue, only 2 (0.9%) persons were receiving the peginterferon alpha and ribavirin therapy for HCV remaining no supportive treatment was found for either HIV/AIDS or HBV immunization or Impaired liver function and also HCV. Similar results were found by Kamarulzaman, 2003 and evaluating that 315 HIV patients were receiving HAART in Kuala Lumpur among them only 2% (7) were IDUs. Similar results were found in Australian NSP survey, 2005 that majority > 90% of IVDUs were not receiving any therapy for HIV/AIDS and HCV infections. Mauss Stefan et al., 2004 significantly evaluated the interferon and ribavirin treatment among methadone receiving MMT patients in Berlin and their findings suggested safe and effective results with reasonable successful rate.

HCV was a leading cause of chronic liver disease and the most common indication for the liver transplantation in adults (Cherikh et al., 1997), although the progression of HCV liver disease typically requires a period of 20-30 years but studies suggested that once the cirrhosis develops, the decompensation risk will about 3 – 4% per year and the risk to liver cancer will be about 1.5% per year (Di Bisceglie et al., 1991). Australian NSP survey 2005 also find quite increase number of liver fibrosis (stage: 2/3). Although HCV treatment uptake among IDUs is low, a recent Australian survey of 100 current IDUs at a primary care site and a methadone clinic found 63% of participants would consider or strongly consider HCV treatment under a 40% treatment efficacy scenario; this figure increased to 93% with 70% treatment efficacy (Doab et al., 2005).

These findings were may be possible reasons of high cost of treatment and unattentive behavior of IVDUs. While communicating with the attending officer the facts was found, i.e., concerns about re-side effects, not sick enough, did not want liver biopsy, cost of treatment too high, high chances of patients relapses and re-occurrence of HCV. Similar findings were also suggested by Doab et al., (2005) in his study in Australia.

Recommendations

Hence there is a need to emphasize on Health setting Institutions for more concern about this issue and possible policy will be required to handle this risk. Hereby we want to mention that above findings were inconsistent to the National guideline for MMT Program protocol 2006, Malaysia.

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