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RESEARCH

Perfil epidemiológico dos casos de hepatite C em uma diretoria regional de saúde da Bahia

Epidemiological profile of cases of hepatitis C in a regional board of health in Bahia

Perfil epidemiológico de los casos de hepatitis C en una junta regional de salud de Bahia

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ABSTRACT

Objective: describing the epidemiological profile of cases of hepatitis C in a Regional Directorate of Health of the State of Bahia in the period 2007-2011. **Method:** a descriptive, cross-sectional study; there were used secondary information from SINAN data. The data analysis was performed with the SPSS 15.0 software. **Results:** during the period analyzed, there were reported 112 cases of hepatitis C, with 36,3 % in 2011. There was a predominance of individuals aged between 40 and 59 years old (61%) of mixed ethnicity (39,7%), with completed high school (24%). There was no gender difference seen that 50 % of reported cases were in men. Among the likely sources of infection reported, transfusion route was the most frequently reported (18 cases). **Conclusion:** the knowledge of the epidemiological profile becomes relevant to the health professionals implement actions aimed at the pursuit an early diagnosis and a treatment of hepatitis C. **Descriptors:** hepatitis C, disease notification, Information systems, health profile.

RESUMO

Objetivo: descrever o perfil epidemiológico dos casos de hepatite C em uma Diretoria Regional de Saúde do Estado da Bahia no período de 2007 a 2011. **Método:** estudo descritivo, transversal, utilizou-se dados secundários a partir de informações do SINAN. A análise dos dados foi feita com o auxílio do *software* SPSS 15.0. **Resultados:** no período analisado, 112 casos de hepatite C foram notificados, sendo 36,3% no ano de 2011. Houve predomínio de indivíduos com idade entre 40 e 59 anos (61%), de etnia parda (39,7%), com ensino médio completo (24%). Não houve diferença entre os gêneros visto que 50% dos casos notificados foram em homens. Dentre às prováveis fontes de infecção notificadas, a via transfusional foi a mais notificada (18 casos). **Conclusão:** o conhecimento do perfil epidemiológico torna-se relevante para que os profissionais de saúde possam implementar ações que visem a busca do diagnóstico e tratamento precoce da hepatite C. **Descritores:** hepatite C, notificação de doenças, sistemas de informação, perfil de saúde.

RESUMEN

Objetivo: describir el perfil epidemiológico de los casos de hepatitis C en una Dirección Regional de Salud del Estado de Bahía, en el período 2007-2011. **Método:** es un estudio descriptivo, transversal, se utilizó información secundaria de datos del SINAN. El análisis de datos se realizó con el *software* SPSS 15.0. **Resultados:** durante el período analizado, 112 casos de hepatitis C se registraron, con un 36,3 % en 2011. Hubo un predominio de personas de edad comprendida entre 40 y 59 años (61%) de origen étnico mixto (39,7%), se había completado La escuela secundaria (24%). No hubo diferencias de género, se ve que el 50 % de los casos reportados fueron en hombres. Entre las posibles fuentes de infección reportados, la vía de transfusión fue el más frecuentemente notificado (18 casos). **Conclusión:** el conocimiento del perfil epidemiológico es importante para que los profesionales de la salud puedan implementar acciones orientadas a la búsqueda de un diagnóstico precoz y el tratamiento de la hepatitis C. **Descriptor:** hepatitis C, notificación de enfermedades, sistemas de información, perfil de la salud.

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INTRODUCTION

Viral hepatitis are infectious diseases caused by different etiologic agents present epidemiological, clinical and laboratory characteristics distinct, with its universal distribution, with variations according to the determining agents, the main virus A, B, C, D and E.¹

Viral hepatitis became a notifiable compulsory disease (DNC) from 2003, when it was published by the Ministry of Health, Ordinance n.2325, which defined the relationship of DNC Nationwide.

Among the viral hepatitis, the hepatitis C virus (HCV) is a major world public health.² Since, globally, HCV infects 130 million people. In Brazil, if not precisely know its prevalence, however, studies conducted in different regions suggest that is between 1% and 3%.^{1,3}

The route of transmission of HCV is parenteral, being at higher risk of illicit injection drug users, hemophiliacs, hemodialysis patients, health professionals and individuals who received blood transfusions (especially before 1993), with the use of illicit injectable drugs considered currently the main risk factor for acquiring hepatitis C.⁴

It is noteworthy that HCV can be transmitted sexually, especially in people with multiple partners and sexual practices without the use of preservative.⁵ possible sources of acquisition of HCV performing tattoos and invasive procedures without the use of are also considered sterile equipment and the shared use of kitchen utensils manicure. Vertical transmission is rare when compared to hepatitis B, however, it has been demonstrated that women with high viral load or HCV co-infected with HIV have a higher risk of disease transmission to newborns.⁵

It is estimated that approximately 50% to 85% of cases of HCV progress to chronic form of the disease and may lead to the development of cirrhosis and hepatocellular carcinoma⁶, one of the biggest reasons indication for liver transplantation.⁷

Thus, given the consequences that HCV can lead to health, it is essential to understand the epidemiology of this disease, since health professionals will prioritize assistance to the health needs of this group, planning preventive actions in order to promote health and the pursuit of early diagnosis and treatment in order to alleviate the impairment of health of individuals with this condition.

In this sense, the present study aims to describe the epidemiological profile of cases of hepatitis C in the Regional Directorate of Health (DIRES) the State of Bahia, in the period 2007-2011.

METHOD

This is a cross sectional and descriptive study, in which was conducted secondary data, from the Information Disease Surveillance System (SINAN) of the 25 municipalities that make up the 13th Dires (Aiquara, Apuarema, Barra do Rocha, Boa Nova, Brejões, Cravolândia, Dário Meira, Ibirataia, Ipiaú, Irajuba, Iramaia, Itagi, Itagibá, Itamari, Itaquara, Itiruçu, Jaguaquara, Jequié, Jitaúna, Lafaiete Coutinho, Lajedo do Tabocal, Manoel Vitorino, Maracás, Planaltino e Santa Inês).

Through SINAN were analyzed the variables: Municipality, year of reporting, age, gender, pregnant, race/color, education, likely source/mechanism of infection, contained for the period between 2007 and 2011. The data analysis was performed with the software Statistical Package for Social Science (SPSS) version 15.0.

RESULTS AND DISCUSSION

From the data analysis, it was found that 112 cases of hepatitis C were reported in 13 municipalities those comprise the 13thDires, and Aiquara, Cravolândia, Iramaia, Itagi, Itiruçu, Jaguaquara and Maracás reported only 01 cases, Jitaúna with 02 notifications and municipalities Ibirataia and Itagibá with 03 cases. The municipalities of Jequié and Ipiaú concentrate most of the cases respectively with 19 and 77 notifications.

From these considerations, it is reflected about the great difference in the number of reported cases among municipalities, especially among Ipiaú and Jequié, which may be related to the fact that these municipalities have specific services for viral hepatitis, since it facilitates the identification and reporting cases.

In Jequié, there is the Reference Center for Sexual Health, which is a structured service, in which a multidisciplinary team carries out prevention, counseling and testing for sexually transmitted diseases, acquired immunodeficiency syndrome (AIDS) and hepatitis B and C.⁸

In Ipiaú, a local program for the prevention and control of viral hepatitis, whose activities involve lectures and conducting rapid tests for Hepatitis C in partnership with the local health department has been implemented. This program has a liver specialist doctor who is treating the patients.⁹

Table 1- Distribution of cases of Hepatitis C (n = 112) according to the year of notification in a Regional Health Board (DIRES) of the State of Bahia in the period from 2007 to 2011.

Year of notification of cases of Hepatitis C	Frequency	Percentual
2007	2	1,8
2008	32	28,6
2009	11	9,8
2010	26	23,2
2011	41	36,6
Total	112	100,0

Source: SINAN, 2012.

With regard to the year of notification of cases (Table 1), it appears that there has been a considerable increase of notifications, this can be evidenced by the 26,8% increase of notifications in 2008 compared to 1,8% of cases in 2007. However, in 2009 there was a further decline of notifications, adding only 9,8%. In 2010, the number of notifications returned to grow, totaling 23,2%. Finally, in 2011 there were recorded 36.6% of the cases.

According to the Ministry of Health¹⁰ all cases of hepatitis C should be reported and investigated. However, from the data found it is understood that many cases are being underreported, sub-registered, or even the number of cases of hepatitis C infection were in fact increasing and/or decreasing the period.

The deficiencies of the notification for viral hepatitis are present in different parts of the health system, and can be caused by several reasons, namely: lack of implementation of a program at the municipal and state levels for prevention and control of hepatitis, absence of outpatient staff able to care of viral hepatitis and laboratories for diagnosis of serological markers.¹¹

Table 2- Epidemiological profile of hepatitis C cases (n = 112) in a Regional Health Board (DIRES) of the State of Bahia in the period from 2007 to 2011.

Epidemiological profile of hepatitis C cases.	Frequency	Percentual
Age		
20 to 39 yearsold	14	12,5
40 to 59	68	60,7
60 andolder	30	26,8
Gender		
Male	56	50
Female	56	50
Race/color		
White	36	32,1
Black	14	12,5
Dark	47	42,0
Ignored	5	4,5
No response	10	8,9
Education		
Illiterate	4	3,6

1 st to 4 th incomplete year of EF*	19	17,0
4 th complete year of EF	15	13,4
5 th a 8 th incomplete year of EF	3	2,7
Elementary school complete	12	10,7
High school incomplete	10	8,9
Complete high school	24	21,4
Incomplete higher education	1	0,9
Complete higher education	5	4,5
Ignored	3	2,7
Does not apply	2	1,8
No response	14	12,4

Source: SINAN, 2012.

*EF: Basic School.

With regard to age (Table 2), there was a predominance of persons aged between 40 and 59 years old (60,7%), followed by those aged above 60 (26,8%) and a smaller number of cases aged 20-39 (12,5%). This finding is consistent with the study by Cruz *et al.*¹, in which detected a higher prevalence of age group of 40-59 years old (52,2%) among patients with hepatitis C treated at a public hospital of São Paulo.

The predominant age range of 40 to 59 years old was also found in the study by Souza *et al.*¹² which investigated the clinical features of 295 patients with hepatitis C, which showed that 55% of these were aged between 40 and 60 years old.

It is worth noting that the prevalence of individuals aged 40 to 59 is related probably to the same, have been exposed to blood transfusions before 1993, since there was no requirement of serologic tests for anti-HCV candidates blood donors.⁴

In relation to gender, it was observed that the percentage of Hepatitis C infection was 50% for both genders. In the study by Ferreira and Silveira² conducted with 4,996 records of patients anti-HCV positive, of public health and private practice of professional services, 61% of cases occurred in males. However, the study of Cruz, and Shirassu Martins¹ performed from the notification of cases in the Center for Epidemiological Surveillance of the Hospital of State Public Server of São Paulo, showed a slight female predominance (51,5%).

It is worth noting that among the 56 women in the study, there was a case of notification of 01 pregnant woman in the 3rd quarter. The prevalence of HCV infection in pregnant women in Brazil does not differ from that found in the general population ranges between 0,9% and 1,5%. Despite the relatively low risk of vertical transmission, emphasize the importance of carrying out screening for hepatitis C during prenatal either for early diagnosis as better therapeutic management.¹³

Regarding race/skin color of individuals, it was observed that 42,0% were of mixed race, 32,1% white, 12,5% black, and 4,5% were considered ignored. However, there is a large number of investigation files without filling this information, a total of 8,9%, which indicates errors in the completion of this notification by health professionals.

A study in San Paulo¹ showed different results regarding the distribution by race where: 84% of individuals are white, 8,05% black, 1,7% yellow race and 5,8% of mulatto.

In the education variable it was perceived a greater proportion of individuals with high school complete totaling 21.4%, followed by 17% of individuals who possess the 1st to 4th year incomplete elementary and other 13.4% who own the fourth complete series of elementary school. These data may suggest, according to Araujo¹⁴ study, individuals with less schooling represent the majority of known cases of the disease.

Through this perspective, and taking into consideration that Hepatitis C can be prevented by changing habits and knowledge of modes of transmission, it is necessary to conduct directed at the population of low education educational activities.

With regard to the likely sources/mechanisms of infection for hepatitis C in the municipalities analyzed, we identified the following: transfusion (18), injection drug use (15), dental treatment (4); accident at work (3), sex (2), hemodialysis (2), surgical treatment (2); person/person (1) and, furthermore, also identified 24 cases were not reported by other causes and 41 ignored and/or blank cases.

As identified in this study, the likely sources of infection in greater evidence are related to the parenteral route. Thus, the Ministry of Health said that hepatitis C transmission occurs primarily via such a route, and a significant percentage of cases, it is not possible to identify the route of infection.⁵

Something that draws attention with regard to the likely source of infection variable is that over 50% of cases show incompleteness of this variable. In this sense, it is necessary to revise the way notifications are being carried out, since there was a high number (36,6%) cases and ignore other non-related causes (21,4%) which is something that needs be reviewed by health professionals during their care practices. Thus, in this study it is evident that there are problems in filling notifications by professionals of health services in relation to surveillance of hepatitis C.

CONCLUSION

It was found that the distribution of cases of hepatitis C in the microregion analyzed were uniform regarding gender, and the predominance of persons aged between 40 and 59 years old (60,7%) of mixed skin (42%) and with low level of education (36,7%).

Regarding the likely sources/mechanisms of infection was identified via a transfusion as the predominant, although 36,6% cases were as unknown and/or blank, demonstrating that the notification is still incomplete, due to the large amount of unknown data.

Among the 25 municipalities that make up the 13th DORES, only 13 municipalities have reported cases of hepatitis C, being that the highest number of notifications occurred in the municipalities of Jequié and Ipiaú.

Regarding the distribution of cases reported during the analyzed period, it was found that there has been a considerable increase of notifications in 2011, but in 2009 there was a decrease in the number of notifications, which may show an underreporting, or misreporting or still that, probably, showed a decline in the number of cases.

Given this situation, it is considered, therefore, that knowledge of the epidemiological profile of patients with hepatitis C becomes relevant to health professionals, who can implement actions aimed at the search for diagnosis and early treatment of hepatitis C.

Thus, after analysis of the results obtained in this study, it is emphasized the importance of fulfilling the completion of all field data sheets of epidemiological investigation of cases of viral hepatitis.

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