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STUDY THE PREVALENCE OF HEPATITIS B, C AND HIV VIRUS INFECTION BETWEEN MALES AND FEMALES IN LIBYAN CAPITAL CITY TRIPOLI

Fathi Sadek[1], Ali El-Remalli[1], Gaith Salama[1], Mohamed Siaan[2] and Massud Anwair[3]*

[1]Department of Laboratory Medicine, Higher Institute for Medical Profession, Tripoli, Libya.
[2]Department of Industrial Pharmacy, Faculty of Pharmacy, Tripoli University – Libya.
[3]Department of Medicinal and Pharmaceutical Chemistry, Faculty of Pharmacy, Tripoli University – Libya.

***Corresponding Author: Dr. Massud Anwair**

Department of Medicinal and Pharmaceutical Chemistry, Faculty of Pharmacy, Tripoli University – Libya

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ABSTRACT

Data were collected from the reality of the National Center for Tuberculosis Control and communicable diseases in Tripoli, the 2014 records and then analyzed the data statistically and classified results of the analysis in tables and graphs were utilized conclusions serve the purpose of the study.This study was conducted in the period from January 2014 until the end of December 2014 and included a number of 6851 cases of applicants for health certificate, including Advanced 5566 males and Advanced 1285 were female, by drawing blood samples from applicants for the detection probability of the presence of infection with viruses HIV, HCV, HBV using the enzyme-linked immunosorbent assay (ELISA). By the results the total infected 45 cases at a rate of 0.65%, including the number of people living with (HBV) is 29 cases at a rate of 0.42%, and the number of people living with (HCV) is 11 cases of 0.16%, while counting the injured virus (HIV) is the 5 cases of 0.07%. We also found that the prevalence of these viruses rise in the youth category Ranged ages of 20-29 years old more than the rest of the other categories, especially HBV and that the infection rate is much lower in females than males.

KEYWORDS: Blood samples, enzyme-linked immunosorbent assay (ELISA) and Pathological cases.

INTRODUCTION

Viruses are considered viruses group of microorganisms, significantly different from all other objects are different, and in the modern classifications systems put viruses in the Kingdom of separate and autonomous called the Kingdom of viruses kingdom viratae, researchers found that the virus is a very small particle composed of the gene and the protein and its small size pass filters that prevent the passage of microorganisms like bacteria; As the largest virus is not larger than half the size of the smallest bacteria, viruses vary in shapes and sizes and so-called full particle of the virus virion Balveron**,** and the **v**iruses are located between living organisms and non-living because they possess qualities such as the ability to Jmadah gelling promised to carry out any metabolic activity and life qualities such as spawning inside living cells and death at certain temperatures.[1]

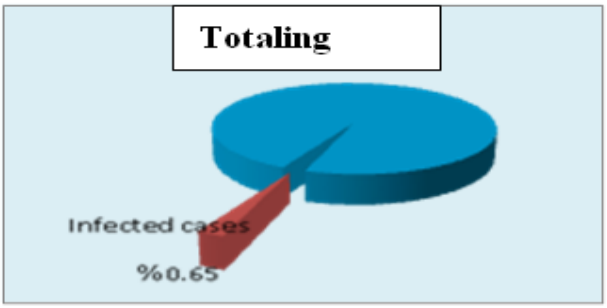
Viruses are composed of DNA, which is usually DNA or RNA but not both together and surrounded by a portfolio of protecting the DNA to determine the shape and size of the virus and help gluing the host cell and in some viruses are surrounded portfolio cover works to resist foreign influences.[2]

The most important diseases caused by viruses are hepatitis, which are the diseases that occurs as a result of injury to the liver and several viruses are belonging to the families of Hepadnaviridae and flavivirdae and they have several types of which the most serious hepatitis B virus (HBV) and Hepatitis C virus (HCV), and there are spreading mainly through contaminated blood products or contaminated needles or sexual contact with the virus.[3]

As well as AIDS, which is caused by immune deficiency that attacks the immune system and weakens the discovery of infectious agents systems and the defense of the body virus disease, infected from a lack of experience in the immune aggravated gradually lead to increase exposure to a wide range of infections and diseases that can be to the health system proper to contend. I think doctors initially that the virus that causes the disease is a virus (CMV) cytomegalovirus (Cytomegaio virus) and then discovered the Japanese that the virus that causes AIDS is a virus (HTLV), a virus responsible for blood lymphocytes Human T Cancer-Cell Leukemia Virus is more virus suspected of causing AIDS, scientists have found that AIDS is transmitted with the hepatitis B virus (HBV) and prevention against the virus leading to AIDS prevention.[4]

RESULTS

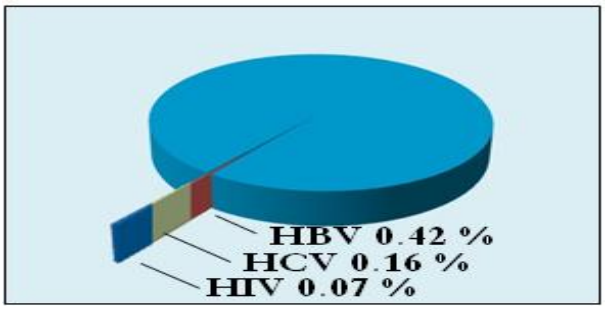
Results of the study showed that the total infected cases with HBV, HCV & HIV were 45 cases of the total number of people who applied for a certificate of health Medical Center to combat tuberculosis and communicable diseases in the year 2014 totaling 6851 ahead, and the incidence of 0.65% and were distributed as follows: Number 29 cases infected with (HBV) at a rate of 0.42%, and the number of cases reported by 11 (HCV) in the rate of 0.16%, and the number of 5 cases infected with (HIV) in the rate of 0.07% as indicated in schedules and the following formats:



"Fig. 1", represents the total percentage of infected cases viruses HBV, HCV & HIV

Table 1, shows the distribution of cases infected with viruses HBV, HCV & HIV

Total applicants	Total injuries	HBV	HCV	HIV
6851	45	29	11	5



"Fig. 2", shows the percentages of viral infections HBV, HCV & HIV Applicants health certificate

Through the study we conducted on applicants for health certificate in 2014 was divided infected cases by

A-The spread of viral diseases between the age groups: These age groups are classified as follows
(I)-The initial age group (20-29 years old).
(II)-The second age group (30-39 years old).
(III)-Third age group (40 years and above).

(I)-The initial age group (20-29 years) represent the largest number of applicants to obtain health certificates, where the number of injuries in this category 23 cases by 51.1% of the total casualties of the applicants were distributed to: 78.2% infected (HIV), 8.7% people living with HIV (HCV), 13.1% infected with a virus (HIV).

As the number of injuries in this category virus (HBV) 18 cases, including representing 62.1% of the total HBV infections.

As for the infection (HIV) it has been recorded in this category injury cases, including representing 18.18% of the total infections (HCV), While the number of cases recorded 3 infected with Acquired Immune Deficiency (HIV), these cases represent 60% of the total cases infected with the virus.

(II)-As recorded in the second age group (30-39 years old), 18 cases of infection by 40% of the total casualties of the applicants were distributed to: 55.5% infected (HIV), 33.3% infected with a virus (HCV), 11.2% infected with a virus (HIV).

Reaching infection (HIV) 10 cases, 34.5% of the total infected with the virus, but infected cases with HIV (HCV) reached 6 cases by 54.5% of the total HBV infections. Cases of infection also recorded ((HIV by 40% of the total HBV infections.

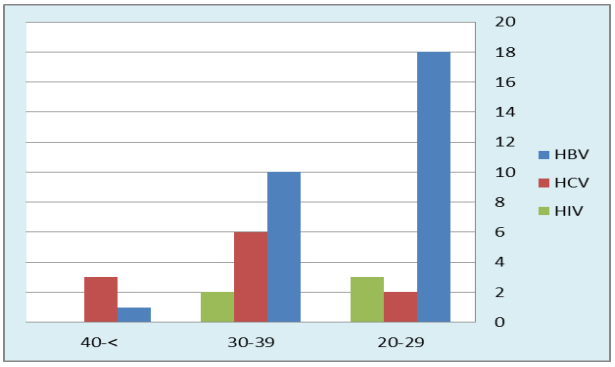
(III)-While in the third age group (40 years and above) represented the minimum number of applicants for health certificate from among the age groups, where only registered 4 cases, equivalent to 8.88% of the total applicants for certification, distributed to:

25% of those infected (HIV), 75% people living with HIV (HCV).

Including 3 cases of b (HCV), including representing 27.2% of the total HBV infections and one case infected B (HBV) 3.4% of the total cases of infection with hepatitis B, but for a virus immune deficiency did not record any cases of infection among applicants this age group.

Table 2 the distribution of cases infected with viruses HBV, HCV & HIV for three age groups

Age	20-29	30-39	< 40
HBV	18	10	1
HCV	2	6	3
HIV	3	2	0



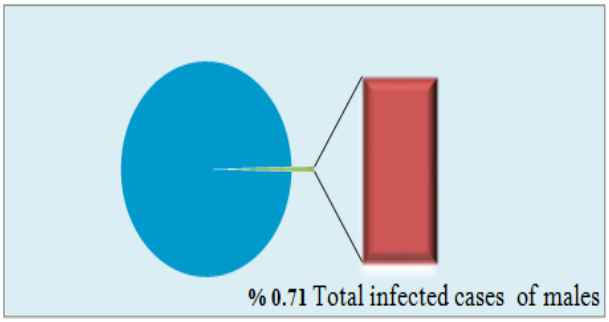
"Fig. 3", shows the number of viral diseases between the age groups

B- The spread of viral diseases among male applicants for health certificate: Through the study we observed that the number of male applicants for the 5566 to win health certificate, including representing 81.2% of the total applicants, the number of cases infected with viruses HBV, HCV & HIV 40 case.

This infected cases represent what percentage of 0.71% of the total number of males, and 0.58% of the total number of applicants to obtain health certificate center.

Table 3, shows the number of male applicants for health certificate

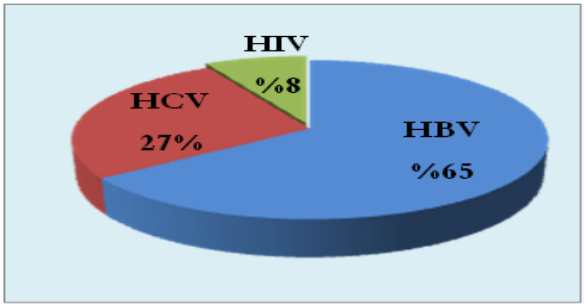
Total applicants	Total number of male	Cases of male
6851	5566	40



"Fig. 4", shows the percentage of infected cases of the total number of male applicants

Table 4, shows the cases of male applicants for Health Certificates

Cases of male	HBV	HCV	HIV
40	26	11	3



"Fig.5", shows the percentages of viral infections among males

C- The spread of viral diseases among female applicants for health certificate: Through the study we observed that the number of female applicants to obtain health certificate in 1285, including 18.8% of the total applicants, the number of cases infected with viruses HBV, HCV & HIV 5 cases.

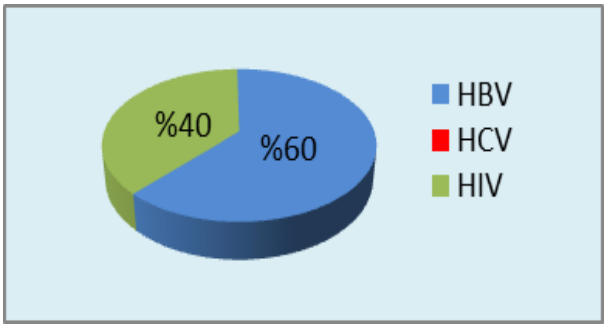
This infected cases represent what percentage of 0.39% of the total number of females, and 0.07% of the total number of applicants to obtain health certificate center.

Table 5, shows the number of female applicants for Health Certificates

Total applicants	Total number of female	Cases of female
6851	1285	5

Table 6, shows the cases of female applicants for Health Certificates

Cases of female	HBV	HCV	HIV
5	3	0	2



"Fig.6", shows the percentages of viral infections among females

DISCUSSION

The results of this study, by 2014 the number of 6851 people showed that the highest cases represented in virus infection (HBV) and at a rate of 0.42% of the total infected 45 cases and represented less results injury in virus (HIV) and (HCV) and by 0.07% and 0.16% Respectively.

Through our study we observed that the incidence of these viruses was the biggest percentage in the first age group increased by 51.1% and the second age group 40% and the lowest percentage in the third age group 8.88%, the most in the male sex, represented by 0.58% and the highest casualties in the proportion infected with HBV which represented by 65% and less infections with HIV by 8%, while the HCV infection by 27%.While the sex ratio of females was less a 0.07% and was the highest casualty rate in this HBV infection represented by 60% fewer HIV infections by 40% and did not record any infected with HCV.Compared to the incidence of this virus group years ago, including the year 2006 the infection ratio (HBV) is about 6.9% and virus (HCV) 22.9% and virus (HIV) 18.4%, in 2007 the percentage of HIV infection (HIV) 0.3%, in the year 2008 was the proportion of HIV infection (HBV) 0.2%, in 2009 the proportion of HIV infection (HBV) 2.28% and virus (HCV) 5.04%, in 2010 the proportion of HIV infection (HBV) 2.28% and virus (HCV) 0.04% and in 2012 the infection rate virus (HVB) 2.21% , through this comparison is clear that there is a decline in incidence compared with the results of the past years.[5, 6, 7]

In a study conducted by the World Health Organization (WHO) in 2008 found that the prevalence rate of the virus (HBV) in Libya is between 0.2 - 1% and in the year

2010 found that the prevalence rate of the virus (HCV) in Libya ranges between 0.04% ,this study is consistent with the current study.[8, 9]

CONCLUSIONS

The spread of viral infections HBV, HCV & HIV of the main causes in the pathogenesis of several health and economic problems and by comparing the results of our study with the results of the past years, as well as other cities in the world, we find that there is a significant decrease in the incidence of these viruses. This decline or decrease in injuries to these viruses reassuring and clearly points to several factors, including perhaps a significant improvement in the health culture, the one who the citizen as well as the development of health services in the country and the awareness that prevails in society and automatic acceptance to conduct tests. On the other hand increase the appetite for taking vaccines for these viruses, and the requirement to obtain a health certificate for the purpose of work and marriage, as well as awareness of the need to move away from the ways of transmission and adherence to its application within the community.

REFERENCES

1. Bassiouni M "viruses aware of" King Saud University Press, Saudi Arabia, 2002; 13-15: 191-198.
2. Fejza, H and Telaku, S. Prevalence of HBV and HCV among blood donors in Kosovo. Virology J. 2009; 6(21): 1-5.
3. Maher H, Bassiouni N. The brief medical viruses, King Saud University Press, Saudi Arabia. 1996; 3-4, 198, 200-210, 213-216.
4. Thibodeau G, Patton T. Structure & Function of the body; 9th. Ed., Mosby year book; 1992.
5. WHO. (2010). Screening Donated Blood for Transfusion-Transmissible Infections, World Health Organization. WHO press. Geneva.
6. Elzouki., A. Infectious Diseases News and Views. The Libyan Journal of Infectious Diseases, The Official Periodical of the Libyan National Center for Infectious Diseases Prevention and Control. 2007; 1(2): 131-132 .
7. Atheer A and C1sama J. Epidemiologlcal Aspects of HIV/AIDS in Iraq; 2007; 80-85.
8. WHO. (2009). Viral Hepatitis. A62/22. World Health Organization. WHO press. Geneva.
9. Shiha A. Prevalence of Hepatitis B virus DNA Among Blood Donors in Nablus. west Bank Faculty of Graduate Studies, An - najah national university, Nablus , Palastine. 2011; 4.