KAP Study about Hepatitis B among Medical and Paramedical Staff in Tikrit City.

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Abstract

Hepatitis B is a global infectious disease with estimated two billions of the world population have contracted the infection, of them there are 350 thousand with chronic infection. Hepatitis B disease may lead to state of chronic carrier, liver cirrhosis and failure or hepatocellular carcinoma. This study aimed to determine knowledge, attitude and practice of health workers and their vaccination status against hepatitis B. This was a cross-sectional study which involved 48 medical staff and 60 paramedical staff, data collection was performed by a suitable self-administered , close-ended questionnaire. Medical staff members had better knowledge about hepatitis B than the paramedical staff. The positive attitude toward vaccination among the medical staff is more than that of the paramedical staff (36 members versus 28 members respectively). There are 27 of the medical staff and 13 of the paramedical had a complete vaccination, the others either they did not receive the vaccine at all or they had incomplete schedule.

Introduction

Infection with hepatitis B virus (HBV) is of global importance and is one of the major diseases of humankind (1). Hepatitis B and C virus infections have become a serious problem of public health and a major cause of morbidity and mortality, particularly in developing countries. Globally, two billion people (about one-third of the world's population) have been infected by Hepatitis B virus (HBV) and 300 to 420 million people are chronic carriers, affecting 5-7% of the world's population. Of these, 75% are Asians. The prevalence of HBV infection varies widely, with rates ranging from 0.1% to 20% in different parts of the world (2) .In Iraq some studies revealed that the carrier rate of hepatitis B among healthy individuals was 2-3% and percentage of those who have markers of previous infection was 30% put Iraq in the group of countries with moderate endimicity for this disease. However, as a result of implication of prevention and control program for this disease, the percentage of hepatitis B seropositivity among healthy individuals and through blood transfusion declined to less than 2% in the recent years (3).

Hepatitis B is vaccine-preventable. Hepatitis B vaccine is the first anticancer vaccine which has outstanding record of safety and effectiveness and 95% effective in preventing children and adults from developing chronic infection(٤).

Health care workers (HCWs) may be exposed to the risk of infection with blood-borne viruses (BBVs) such as HBV, hepatitis C virus (HCV) and human immunodeficiency virus (HIV) via contact with blood (and other body fluids) in the course of their work (5).

Doctors and paramedics can easily get infected with the highly infectious Hepatitis B virus in hospital and clinic settings with consequent morbidity and mortality. Although Hepatitis B infection is completely preventable by following a simple and widely available vaccination schedule yet doctors continue to get infected with this disease(6). They should be aware of the risk involved in the treatment procedures and should take appropriate precautions in dealing with patients. Prevention is the only safeguard against epidemic of viral hepatitis. Knowing facts and having proper attitudes and behaviors are critical to prevent the spread of these infections(7).

Aim

To study the Knowledge ,attitude and practice regarding hepatitis B among the health workers in Tikrit city and To determine the vaccination status of HBV.

Methodology

A cross-sectional descriptive study was conducted among health workers in Tikrit health institution including two government hospitals, Medical Rehabilitation Centre and 3

PHCC during a period extended from 1st of August 2011 to 30th of September 2011. The total number of participants was 108, of them there were 48 doctors and 60 paramedical staff members.

In government hospitals, randomly selected nurses and doctors who consented to participate were given questionnaires, while in PHCC all doctors and nurses were included. Data collection was carried out using a self-administered, close-ended structured questionnaire to assess the KAP regarding HBV infection and vaccination. It contained questions about knowledge regarding transmission of hepatitis, diagnosis and vaccination. A scoring system was used to assess whether the participants had good, moderate or poor knowledge.

Attitude of participants was assessed by asking suitable questions and using an appropriate scoring system. Regarding practice which is concerned with exposure to and/or protection against hepatitis B virus was revealed by appropriate questions. The collected data were organized and represented in tables and graphs .

Results

Hepatitis B virus (HBV) infection is a well-recognized occupational health hazard preventable by vaccination. This study included health workers in three government hospitals and three PHCC in Tikrit city, the sample was 108, of them there were 48 doctors and 60 paramedical staff members. The knowledge of health workers about hepatitis B showed that medical staff have a better knowledge than the paramedical staff, as the distribution of them according to questions showed that all the 48 medical staff have answered the question about stick injury truly, while some of the paramedical staff have wrong answers (7) and others stated 'do not know' (4). There were 6 members of medical staff and 3 paramedical staff had positive response in regard to the titer essential for protection against hepatitis B while the majority of both groups had stated 'they do not know'. Generally, the medical staff had better positive responses in comparison with the paramedical staff (Table 1). There are 30 of the medical staff have good knowledge about hepatitis B, only 3 of them had bad knowledge. While 23 of the paramedical staff had bad knowledge and 11 had good knowledge (Figure 1). The distribution of answers to attitude questions showed that the number of medical staff responded positively to these questions more than the number of the paramedical staff, as there were 46 of them responded as 'strongly agree' and 'agree' (Table 2). Medical staff had positive attitude toward vaccination against hepatitis B (36 members) more than the paramedical staff (28 members) as shown in (Figure 2). There are 37 members of the medical (out of 48) who had been vaccinated against hepatitis B and 34 members of the paramedical staff who had been vaccinated (out of 60), no one of the two groups had their immunity checked after vaccination, these results are shown in table (3). There are 11 of the medical staff who stated ' No or Don not know' about their vaccination status, but in the paramedical staff the number was 26. There are 27 of the medical staff who had complete vaccination and 10 had incomplete status. Thirteen of the paramedical staff had complete and 21 incomplete vaccination, these results are shown in figure (3).

Discussion

The results of this study showed that the medical staff had higher percentage of positive responses toward the questions concerning the knowledge about hepatitis B, this can be explained by the fact that physicians had more training years in the college and the continuous medical education activities in the postgraduate years, therefore they had wider knowledge than the paramedical staff, this result is in agreement with a study done by el Ayaat and Sayed HA who found that the nurses had low scores in regard to knowledge (8) and a study done by Patricia N. Africa (11). The results of this study have shown that medical staff have much more knowledge about hepatitis B then the paramedical staff this can also be explained by the same reason mentioned above, this was in agreement with other studies, el Ayaat and Sayed (8), Maqbool Alam (9) Emeka B. Kesieme **et al** (10) which showed that operating room theater personnel have a good awareness about hepatitis B and the measures to prevent it. Based on their good level of knowledge the medical staff had a good attitude toward the

vaccination against hepatitis B, this was in agreement with Patricia study(11). The results showed that there was a good number of the medical staff as well as the paramedical staff who have been vaccinated against hepatitis B, but no one of both groups have checked their status of immunity, this result was not in agreement with a study done in Pakistan were there was 60% of orthopedic trainees know their status of immunity against hepatitis B(12). The study results showed that there was a significant number of both medical and paramedical staff who did not receive vaccination against hepatitis B, this result was in agreement with other studies, such that in Pakistan where they found a ate of vaccination between 45%-86% in different Pakistani hospitals(13), another Pakistani study found that 11.6% of doctors had not received any dose of vaccine and 14.4% had not completed the vaccination(6).

Conclusions

1. Knowledge of the medical staff in Tikrit city is sufficient in regard to hepatitis B, but the paramedical staff knowledge is not abundant.
2. The attitude of the medical staff is better than that of the paramedical staff in regard to the vaccination against hepatitis B.
3. A significant number of both medical and paramedical staff did not receive or did not complete the vaccination.

Recommendations

1. Launch a campaign of awareness about hepatitis B among health workers, especially the paramedical staff, about hepatitis B and encourage them have a complete vaccination.
2. Review the ways of transmission of hepatitis B to the health workers and the ways to prevent it.
3. Encourage health workers to investigate their status of immunity against hepatitis B, especially those who are at high risk to contract the infection such as surgeons, lab workers and dentists.
4. Perform a clinical trial based on serology to determine the immunity status against hepatitis B among health workers in Tikrit city.

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Table (1): Distribution of answers to knowledge questions.

Questions		**Medical No. (%)n=48**	**Paramedical No. (%)n=60**
Can get hepatitis B through a needle stick injury	True	48	49
	False	0	4
	Don't Know	0	7
There is no effective vaccine for hepatitis B	True	0	3
	False	48	55
	Don't Know	0	2
There is no need for a blood test	True	4	6
	False	42	44
	Don't Know	2	10
Hepatitis B vaccine provides 100% protection for 90% adults	True	40	22
	False	2	11
	Don't Know	6	27
Hepatitis B vaccine protects against HBV for at least 15 years	True	39	32
	False	2	4
	Don't Know	7	24
Vaccinated patients should not be considered as a possible source of HBV	True	10	21
	False	31	27
	Don't Know	7	12
A person vaccinated or recovered from hepatitis B can infect others	True	23	20
	False	17	21
	Don't Know	8	19
HIV is more infectious than hepatitis B virus	True	6	29
	False	33	16
	Don't Know	9	15
For protection against hepatitis B, one needs a titre of at least 10mIU/ml	True	6	3
	False	10	18
	Don't Know	32	39

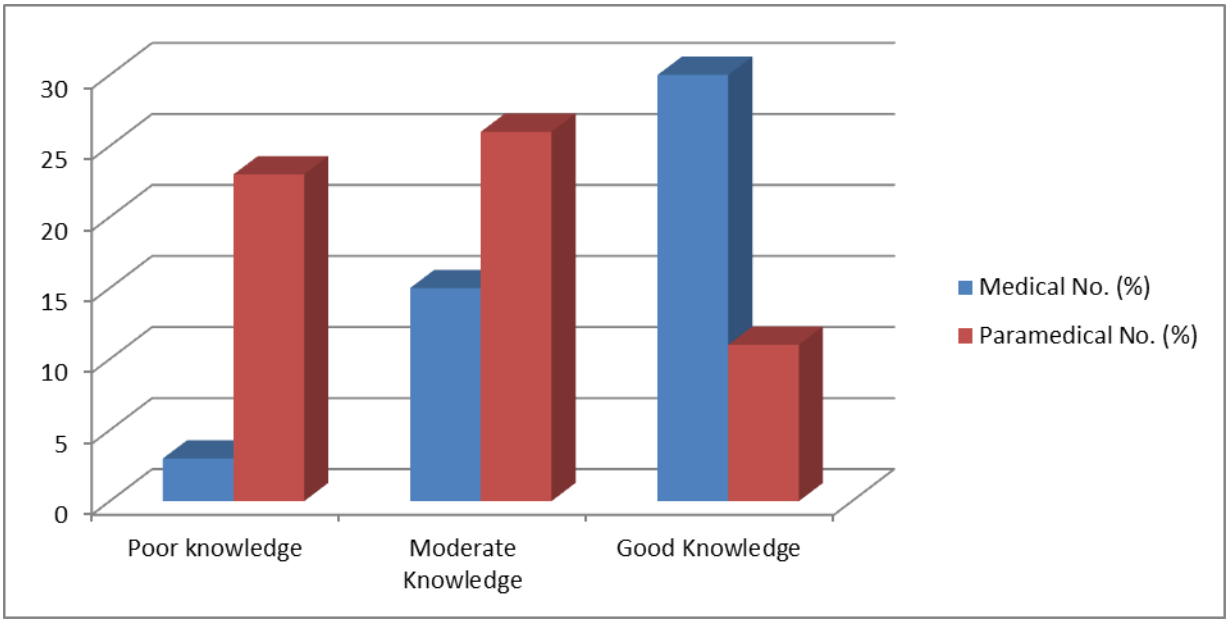

Figure (1): Distribution of level of knowledge among medical and paramedical staff.

Table 2: Distribution of answers to attitude questions

Hepatitis B vaccination	Strongly agree		Agree		Do not know		Disagree		Strongly disagree	
	Med.	Para.	Med.	Para.	Med.	Para.	Med.	Para.	Med.	Para.
Should be compulsory	16	19	30	31	2	7	0	3	0	0
Am scared of vaccination	4	6	7	7	0	3	29	33	8	11
Always careful therefore don't need it	1	4	3	6	0	9	35	27	9	14
Not at risk therefore don't need it	0	0	0	3	0	10	16	32	32	10
Do not trust	0	0	0	3	1	12	14	34	33	11

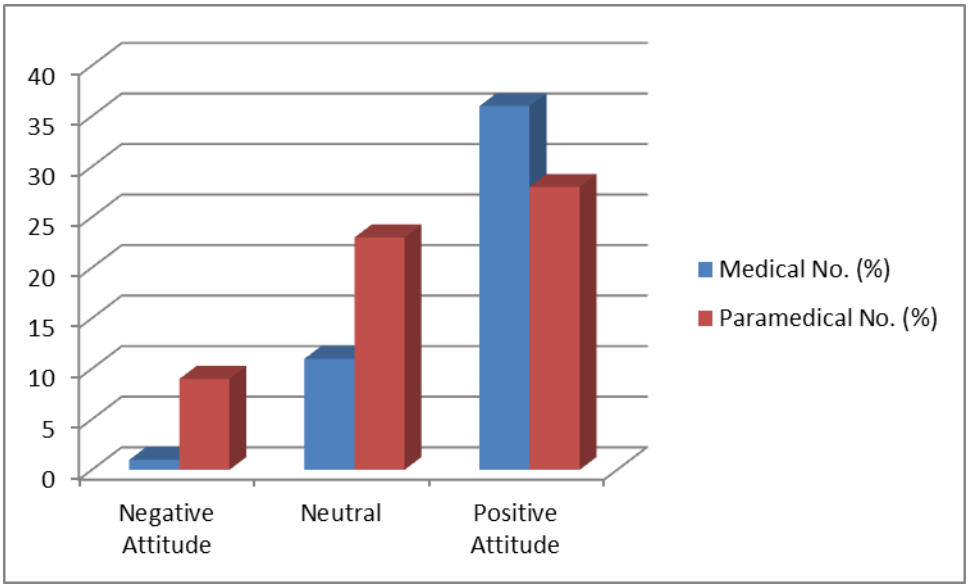

Figure (2): Attitude of medical and paramedical staff toward vaccination against hepatitis B.

Table (3): Frequency distribution of responses regarding hepatitis B vaccine and its protection.

Vaccination and protection against hepatitis B	Medical Number (%)	Paramedical Number (%)
Have you been vaccinated against hepatitis B virus?		
Yes	37	34
No	10	17
Don't know	1	9
Was your immunity against hepatitis B checked after vaccination?		
Checked	0	0
Not checked	48	60
If checked, are you Protected?		
Protected	0	0
Not protected	0	0
Don't know	0	0

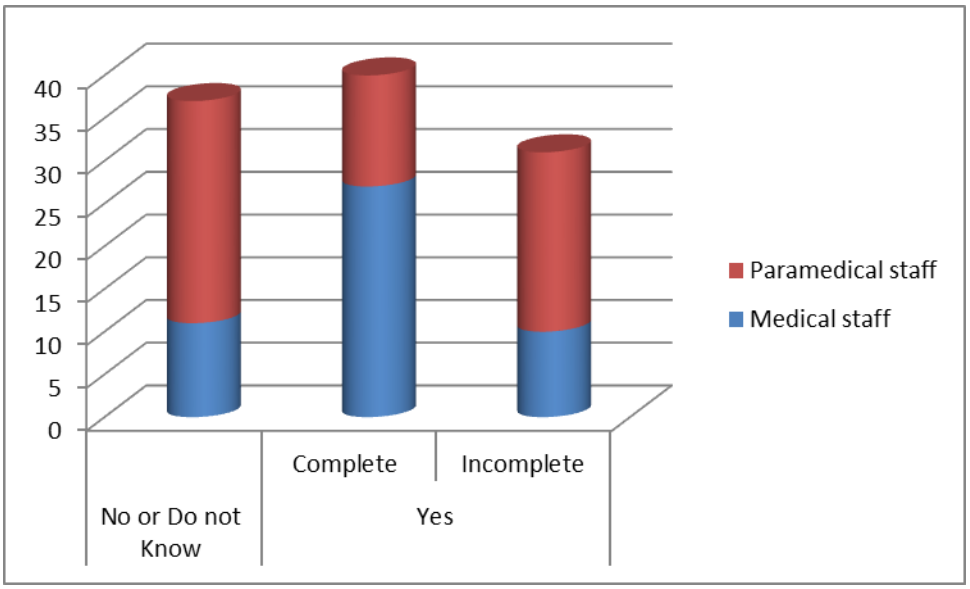

Figure (3): Vaccination status among medical and paramedical staff.