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# KNOWLEDGE, ALTITUDE AND PRACTICE OF MEDICAL STUDENTS IN JAZAN UNIVERSITY TOWARD VIRAL HEPATITIS

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**Abstract:**

*The present study was aimed to determine the prevalence of blood and intestinal parasites of patients attending some hospitals in Jazan region . Blood samples of 6188 patients attending 5 hospitals of Jazan region ( Jazan, Sabia , Samtah, Abu-Areish and King Fahd hospitals) were collected and examined for malaria parasites at the period from January to December 2013. Out of these samples, 300 blood specimens were found infected with Plasmodium spp. with an annual prevalence of 4.85 %. Out of 300 positive samples, 298 samples were found positive for P. falciparum with a rate of 99.3% of total infected patients, while only two samples were found positive for Plasmodium vivax with a rate of 0.7% of total positive samples. The prevalence of malaria was high in winter and low in summer. The high prevalence of malaria in Jazan region, comparable with other regions in Saudi Arabia was discussed in detail. Also, stool samples of 3343 patients attending 5 hospitals in Jazan region were collected and examined for intestinal parasites. Out of these samples, 59 samples were found positive for intestinal parasites with an annual prevalence of 1.76% . Twenty two samples were found positive for Giardia Lambelia with a rate of 39.29% of total positive samples followed by 16 positive samples of Entamoeba coli with a rate of 28.57%, fourteen positive samples of Entamoeba histolytica with a rate of 25% and 7 positive samples of Ascaris lumbercoides which recorded the lowest value with a rate of 7.14 % of total positive samples.*

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## INTRODUCTION:

HAV, HBV, HCV, HDV and HEV; there are the main five viruses can cause hepatitis. Types B and C can lead to chronic disease and the most common cause of liver cirrhosis and cancer.(2) The Hepatitis A commonly occurs in sporadic form and can cause epidemics. 1.4 million cases of hepatitis A an estimated in the worldwide.(3) A 2 billion people in the worldwide an estimated with HBV and about six thousand of them die every year. The chronic liver infection by HBV it's occure more than 240 million people.

From 50-100 times ifections by HBV occure more HIV. (4)

A 350 thousand people die from 3-4 million people infected with HCV every years. About half of them are chronically infected with this virus.(5)

More than 10 million people in the worlwide are infected with HDV. (6)

But, there are approximately 20 million people are infected by HEV every year.(7)

These types of viral hepatitis may be occur without symptoms;If symptoms appear; can be include : (fever, malaise,anorexia (loss of appetite), diarrhoea, nausea,vomiting, hepatomegaly, tenderness, abdominal discomfort, dark-coloured urine and jaundice (a yellowing of the skin and whites of the eyes); Also, in cases with chronic liver infection by HBV, HCN and HDV can developed later int cirrhosis or liver cancer. (2,3,4,5,6,8)

The HAV and HEV commonly are transmitted by the faecal-oral route. But HBV and HDV can transmitted through body fluids (Blood-Semen-Saliva...etc). Unlike HCV can transmitted through blood and sexual contact (less common).

**Prevention:**

HAV and HBV : vaccines; Also can prevent infection by HDV by HBV vaccine in apsence of chronic HBV carriers.
HAV and HEV : through Improved sanitation, food safety and personal hygiene.

HCV: Caution while dealing with the blood of a patient infected with the virus or unsafe sexual contact. (2,3,4,5,6,9)

The viral hepatitis can cause a lots of problems including epidemics and outbreaks in many countries. They 2 types had major problems with health care workers (HCWs) and this target of students will be under risk in future. This research should be conduct on Puplic, HCWs, barbers and clients and all students will be at risk in future.

Because we do not have enough time to do that; we do the avalaible one in this short time and we hope to be satisfactory for all.

Also; We do this research because they endemic in my country specially in jazan city and there is a lack of research relating to the measurement of the degree of knowledge and attitudes of Saudi students about viral hepatitis.

## PATIENTS AND METHODS:

* Study design

- Cross sectional descriptive study

* Study area:

- This study was conducted at Jazan University (faculty of medicine) that located in Jazan town, which is located in south-western part of Saudi Arabia between longitude 42 degrees 8,43 degrees and latitudes 5,16 degrees and 17 degrees. It's bounded to the north by Asir region and to the south by State of Yemen and from the east Asir region and the State of Yemen, and the Red Sea to the west.

* Study population:

- The focus of this study is on the medical students in Jazan University (Medical students from 2nd to 6th year).

Sample size and sample design:

The study was conducted on faculty of medicine .

Sample size determination for estimating the population proportion is calculated by using the following formula:

$$n = \frac{z_{1-\alpha}^2 P(1-P)}{d^2}$$

$$n = \frac{1.96^2 \times 0.5(1-0.5)}{0.05^2} = 384$$

- Where: Z=1.96, d=0.05% and P=50 %, (P = was set 50 % it will provide the maximum sample size since there was no prior knowledge about the Knowledge,

attitude and practice of medical students in Jazan university towards viral hepatitis.

From the above-mentioned equation the sample size is 384 individual.

- The total number of medical students is around 500 students, we take a random students in every single class depending on the previous equation to give equal chances.

So 384 questionnaire was divided by equal, we have around 270 students in the male section and 230 students in the female section.

That means 270/500=0.54 which means 0.54*384=207 questionnaire for male section. And 230/500=0.46 which means 0.46*384=177 questionnaire for female section..

## METHODS OF DATA COLLECTION:

- Data was collected using a self-administered questionnaire.
- The questionnaire was written in English and Arabic Form and consisted of 36 question (21 about the knowledge, 9 about the attitude, and 6 about the practice). The most of them were closed ending questions and few of them were opened questions.

## DATA ENTRY AND ANALYSIS:

- The SPSS (Statistical Package for Social Sciences) software program was used for data analysis. Frequency distribution was obtained and descriptive statistics will be calculated.

## RESULTS:

In the present study, blood samples of 6188 patients attending hospitals of Jazan region at the period from January to December 2013 (except for Abu Areish hospital where blood samples were collected and examined at the period from May 2012 to April 2013) were collected and examined for malaria parasites (Table 1). Out of these samples, 300 blood specimens were found infected with Plasmodium spp., with a general prevalence of 4.85 %. Only two of 300 samples were found positive for Plasmodium vivax with a rate of 0.7% of total positive samples while 298 samples were found positive for P. falciparum with a rate of 99.3% of total infected patients. This indicates that P. falciparum is highly prevalent in patients of Jazan region if compared with P.vivax.
It appears from table 1 that the highest prevalence value of malaria disease was recorded in patients attending Samtah hospital (7.43%) followed by those attending Abu Areish hospital. The lowest prevalence value of malaria disease was found in patients of King Fahd hospital (0.44%). Moreover, the prevalences of malaria disease in patients of Sabia and Jazan hospitals were nearly similar (Table 1).

Table 1 shows that a total of 3343 stool samples of patients attending 5 hospitals in Jazan region were collected and examined for intestinal parasites at the period from January to December 2013 ( except for Abu Areish hospital). Out of 3343 stool samples, 59 samples were found positive for intestinal parasites with an annual prevalence of 1.76%. The highest prevalence value of intestinal parasites was recorded in patients of Jazan

hospital (2.95%) while the lowest value of prevalence was found in patients of King Fahd hospital (0.44%).

**Table 1**. The annual prevalence of blood and intestinal parasites in patients attending some hospitals in Jazan region.

| Hospital | Blood samples | | Prevalence % | Stool samples | | Prevalence % |
|---|---|---|---|---|---|---|
| | Examined | Positive | | Examined | Positive | |
| **Jazan** | 1053 | 43 | 4.08 % | 271 | 8 | 2.95% |
| **Sabia** | 1144 | 52 | 4.54% | 1100 | 23 | 2.09% |
| **Abu Areish** | 691 | 41 | 5.93% | 719 | 12 | 1.67% |
| **Samtah** | 1050 | 78 | 7.43% | 575 | 13 | 2.26% |
| **King Fahd** | 2250 | 86 | 3.82% | 678 | 3 | 0.44% |
| **Total** | 6188 | 300 | 4.85% | 3343 | 59 | 1.76% |

It appears from Table 2 and Figure 1 that the highest prevalence of malaria disease was found in February while the lowest prevalence was recorded in June. There were no positive cases in September (Ramadan).

**Figure 1**.Monthly occurrence of malaria disease in Jazan hospital from January to December 2009

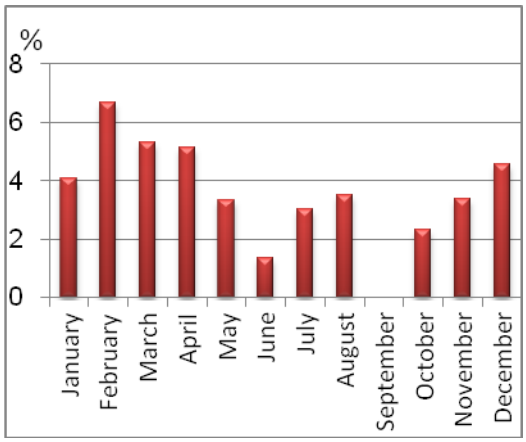



Figure 2 show the seasonal occurrence of malaria disease among patient attending Jazan hospital. Malaria disease was found to be highly prevalent in Winter while the lowest prevalence was recorded in Autumn (Fig. 2). It can be seen from Table 3 and Figure 3 that the highest prevalence of malaria disease in patient attending Sabia hospital was in February while the lowest prevalence was in December.

**Figure 2**. Seasonal occurrence of malaria disease among blood examined patients attending Jazan hospital during seasons of 2009.

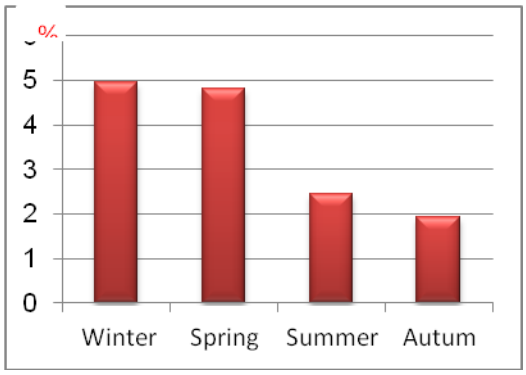
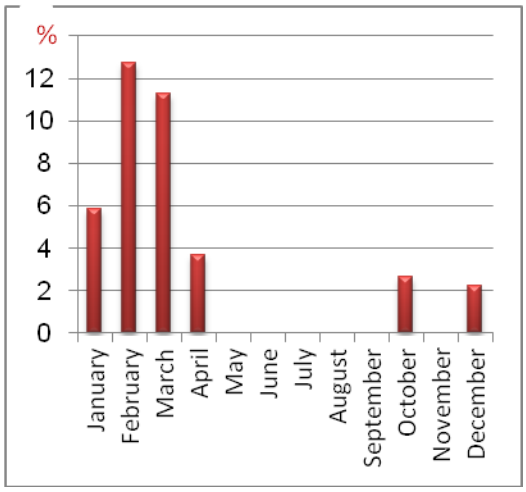



**Figure 3**. Monthly occurrence of malaria disease among blood examined patients attending Sabia hospital from January to December 2009.



There were no positive cases of malaria in May, June, July, August, and September Concerning seasonal occurrence (Fig.4), the highest prevalence of malaria in patient attending Sabia hospital was in Winter while the lowest prevalence was in Autumn. There were no infected cases in Summer (Fig. 4).

Concerning malaria in patients attending Abu-Areish hospital, it was found that the highest prevalence occurs in February and lowest

**Figure 5.** Monthly occurrence of malaria diseases among blood examined patients attending Abu Areish hospital from May 2012 to April 2013.

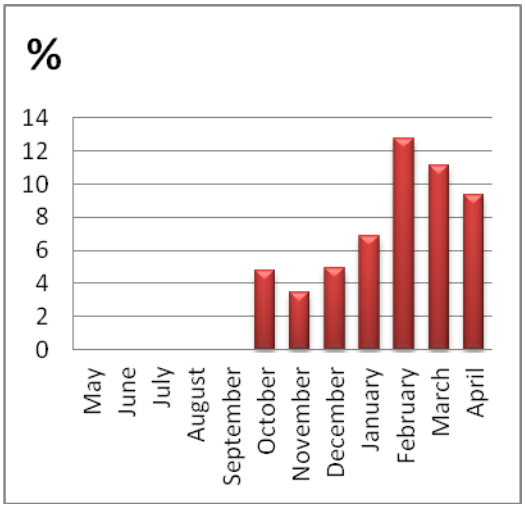
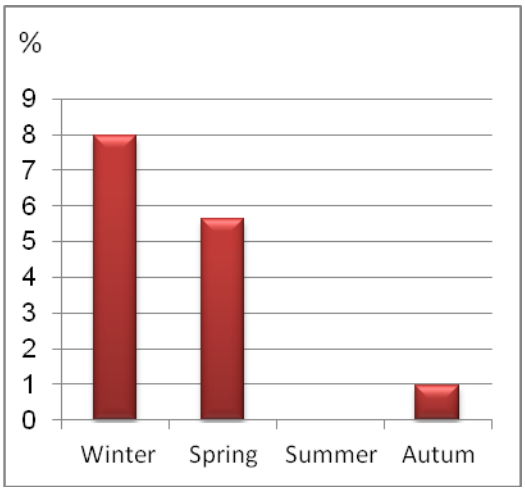



**Figure 4**. Seasonal occurrence of malaria disease among blood examined patients attending Sabia hospital from January to December 2013.




Concerning malaria in patients attending Abu-Areish hospital, it was found that the highest prevalence occurs in February and lowest prevalence in November (Fig. 5).There was no infected cases in May, June, July, August and September. Seasonally, the highest prevalence was found in Spring while the lowest prevalence was reported in Autumn. There were no infected cases in Summer.

Figure 6 show the monthly occurrence of malaria disease in patients attending King Fahad hospital. It appears that the highest prevalence was found in April while the lowest prevalence was recorded in October. Seasonally, the highest prevalence value was recorded in winter while the lowest prevalence value reported in Autumn.

**Table 2.** Monthly occurrence of malaria disease among blood examined patients attending Jazan hospital from January to December 2013.

| Month | Examined samples | Positive samples | Prevalence% | Parasite species |
|---|---|---|---|---|
| **January** | 147 | 6 | 4.08% | *P.falciparum(6)* |
| **February** | 120 | 8 | 6.67% | *P.falciparum(8)* |
| **March** | 113 | 6 | 5.31% | *P.falciparum(6)* |
| **April** | 97 | 5 | 5.15% | *P.falciparum(5)* |
| **May** | 60 | 2 | 3.33% | *P.falciparum(2)* |
| **June** | 74 | 1 | 1.35% | *P.falciparum(1)* |
| **July** | 33 | 1 | 3.03% | *P.vivax (1)* |
| **August** | 57 | 2 | 3.51% | *P.falciparum(2)* |
| **September** | 53 | - | - | - |
| **October** | 43 | 1 | 2.33% | *P.falciparum(1)* |
| **November** | 59 | 2 | 3.39% | *P.falciparum(2)* |
| **December** | 197 | 9 | 4.57% | *P.falciparum(8) P. vivax(1)* |
| **Total** | 1053 | 43 | 4.08% | *(41) P.falciparum (2 )P.vivax* |

**Table 4**. Monthly occurrence of malaria disease among blood examined patients attending Sabia hospital from January to December 2013

| Month | Examined samples | Positive samples | Prevalence% | Parasite species |
|---|---|---|---|---|
| **January** | 136 | 8 | 5.88 | *P.falciparum* |
| **February** | 165 | 21 | 12.73 | *P.falciparum* |
| **March** | 133 | 15 | 11.28 | *P.falciparum* |
| **April** | 109 | 4 | 3.67 | *P.falciparum* |
| **May** | 96 | - | - | - |
| **June** | 79 | - | - | - |
| **July** | 68 | - | - | - |
| **August** | 65 | - | - | - |
| **September** | 57 | - | - | - |
| **October** | 76 | 2 | 2.63 | *P.falciparum* |
| **November** | 71 | - | - | - |
| **December** | 89 | 2 | 2.25 | *P.falciparum* |
| **Total** | 1144 | 52 | 4.54 | |

Concerning the monthly occurrence of intestinal parasite in patients attending Jazan hospital, it appears that the highest prevalence

value was recorded in February while the lowest value was found in May. Seasonally, the highest prevalence was evident in Winter and

**Figure 6**. Monthly occurrence of malaria diseases among blood examined patients attending King Fahad hospital from January to December 2013.

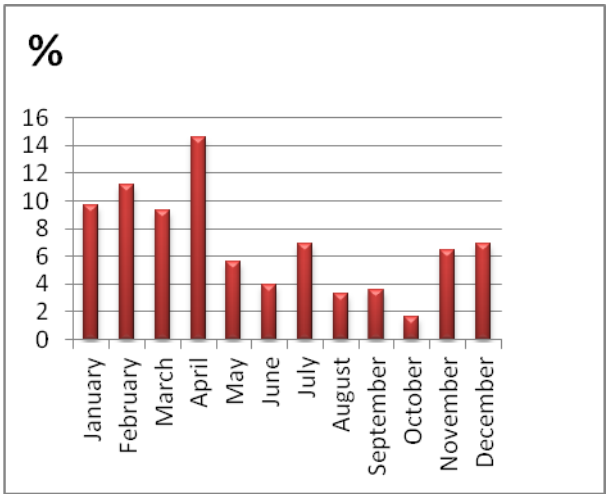
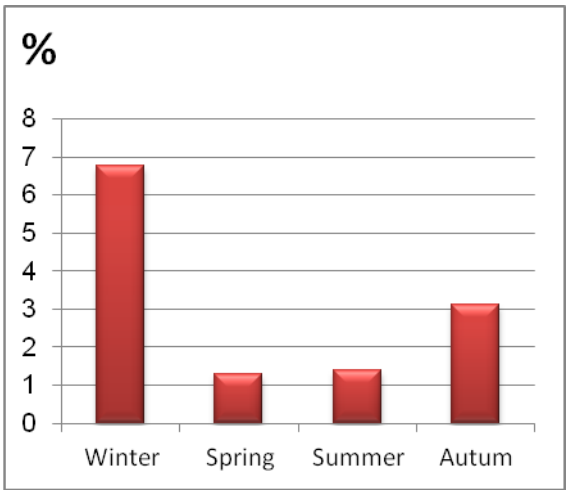



**Figure7.** Seasonal occurrence of intestinal parasitic diseases among stool examined patients attending Jazan hospital from January to December 2013




the lowest in Spring (Figure 7). Figure 8 show that the highest prevalence value of intestinal parasites in patients attending Sabia hospital was in December while the lowest value was in May. Seasonally, the highest value of prevalence was evident in Winter and lowest value was in Autumn.

Concerning the monthly occurrence of intestinal parasite in patients attending Abu-Areish hospital (Fig.9), it appears that the highest prevalence value was found

**Figure8.** Monthly occurrence of intestinal parasitic diseases among stool examined patients attending Sabia hospital from January to December 2013

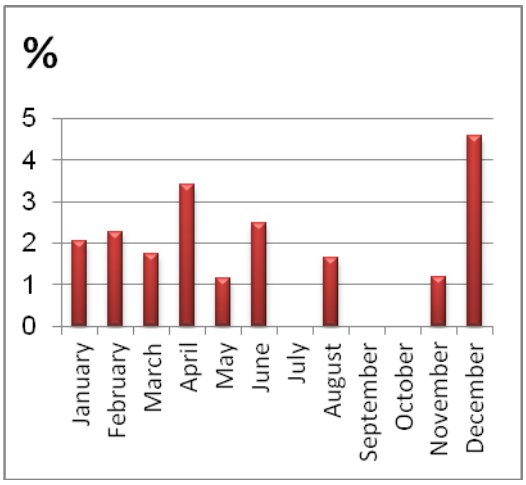
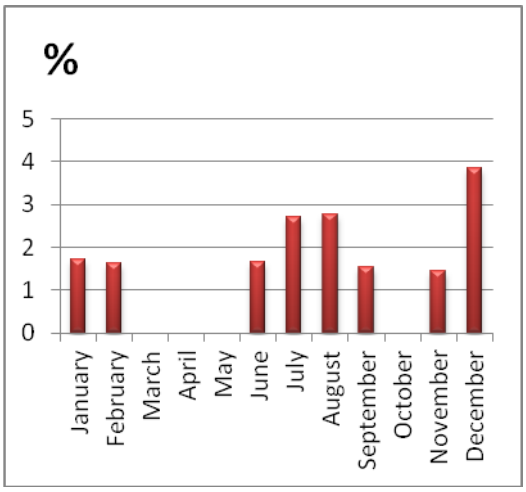
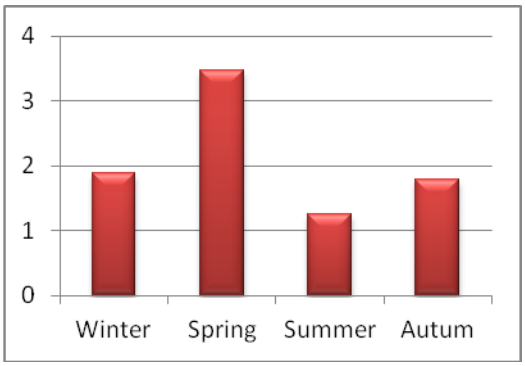



**Figure9.** . Monthly occurrence of intestinal disease among stool examined patients attending Abu Areish hospital from January to December 2013.




in December and lowest value in November. There were no infected cases in March, April and May. Seasonally, the highest prevalence value was recorded in Autumn while the lowest value was in Summer. There were no recorded positive cases in Spring . For patients attending Samtah hospital, the highest prevalence of intestinal parasitic diseases was recorded in March while the lowest value was found in April. There were no infected cases in July, August, September. Seasonally, the highest prevalence value was evident in Autumn while the lowest value was in Summer (Fig. 10).

**Figure10**. Seasonal occurrence of intestinal parasitic diseases among stool examined patients attending Samtah hospital from January to December 2013




Concerning patients attending King Fahad hospital, the highest prevalence of intestinal parasite was in June and November while the lowest value was recorded in December (Table 4 ). There were no infected cases in other months of the year. Seasonally, the highest prevalence was recorded in Summer and lowest value in Winter . There were no recorded positive cases in Spring.

It appears from Table 5 that the highest prevalence value of malaria disease all over the five hospitals was recorded in February while the lowest value was recorded in October. Also, the highest prevalence value of intestinal parasites in all hospitals was noticed in December (Table 6).

Table 7 shows the rate of positivity of each intestinal parasite among recorded parasites. It appearsthat Giardia Lambelia represents the most dominant intestinal parasite recording (39.29%) followed by Entamoeba coli (28.57%) and Entamoeba histolytica (25%). Ascaris lumbercoides recorded the lowest rate in positive recorded samples

**Table4**. Monthly occurrence of intestinal parasitic diseases among stool examined patients attending King Fahd hospital from January to December 2013

| Month | Examined samples | Positive samples | Rate of positivity % | Parasite species |
|---|---|---|---|---|
| **January** | 49 | 0 | 0% | *Nile* |
| **February** | 84 | 0 | 0% | *Nile* |
| **March** | 46 | 0 | 0% | *Nile* |
| **April** | 59 | 0 | 0% | *Nile* |
| **May** | 83 | 0 | 0% | *Nile* |
| **June** | 56 | 1 | 1.79% | *Entamoeba .histolytica(1)* |
| **July** | 47 | 0 | 0% | *Nile* |
| **August** | 50 | 0 | 0% | *Nile* |
| **September** | 50 | 0 | 0% | *Nile* |
| **October** | 50 | 0 | 0% | *Nile* |
| **November** | 56 | 1 | 1.79% | *Ascaris Lumbricoides(1)* |
| **December** | 98 | 1 | 1.02% | *Giardia lambelia (1)* |
| **Total** | 678 | 3 | 0.44% | |

**Table 5**. Monthly occurrence of malaria disease in patients attending five hospitals in Jazan region during the period from January to December 2013

| Month | Examined samples | Infected samples | Prevalence % |
|---|---|---|---|
| **January** | 551 | 37 | 6.71% |
| **February** | 552 | 72 | 13.04% |
| **March** | 555 | 53 | 9.54% |
| **April** | 492 | 45 | 9.14% |
| **May** | 348 | 12 | 3.44% |
| **June** | 383 | 9 | 2.34% |
| **July** | 280 | 11 | 3.92% |
| **August** | 344 | 11 | 3.19% |
| **September** | 366 | 10 | 2.73% |
| **October** | 412 | 9 | 2.18% |
| **November** | 297 | 11 | 3.7% |
| **December** | 460 | 18 | 3.91 |

**Table 6.** Monthly occurrence of intestinal parasites of patients attending five hospitals in Jazan region during the period from January to December 2013.

| Month | Examined samples | Infected samples | Prevalence % |
|---|---|---|---|
| **January** | 335 | 8 | 2.39% |
| **February** | 358 | 7 | 1.95% |
| **March** | 262 | 5 | 1.9% |
| **April** | 322 | 5 | 1.55% |
| **May** | 283 | 4 | 1.41% |
| **June** | 255 | 6 | 2.35% |
| **July** | 294 | 4 | 1.36% |
| **August** | 259 | 4 | 1.54% |
| **September** | 219 | 1 | 0.45% |
| **October** | 192 | 2 | 1.04% |
| **November** | 282 | 5 | 1.77% |
| **December** | 332 | 10 | 3.01% |

**Table 7**. Rate of positivity of each intestinal parasite species among recorded parasites

| Species | No. of infected patients | Rate of infection |
|---|---|---|
| ***Giardia lambelia*** | 22 | 39.29% |
| ***Entamoeba histolytica*** | 14 | 25% |
| ***Entamoeba coli*** | 16 | 28.57% |
| ***Ascaris lumbricoides*** | 4 | 7.14% |

**DISCUSSION**:

The present study has indicated that the overall prevalence of intestinal parasites among patients attending five different hospitals in Jazan region, at the period from January to December 2013, was 1.76%. However, there was a distinct difference between prevalences of intestinal parasites in these hospitals. The highest prevalence was noticed in patients visiting Jazan hospital, while the lowest prevalence value was recorded in King Fahad hospital. In Saudi Arabia, previous stool surveys have indicated that approximately 2-55% of various groups of people studied were infected with intestinal parasites (4,6,7,8,10,11,12,13)(AL-Saud,1983&1995; Abduel-Hafez et al.,1986; Qadri and Khalid,1987; Khan et al.,1989; AL-Shammari et al.,2001; AL-Khalife,2006). AL-khalife (2006) found that 2.3% of patients attending King Fahd hospital in Riyadh were positive for intestinal parasites and Giardia lambelia was the most commonly recorded parasite. This result coincided with that recorded in patients visiting Samtah hospital in Jazan region where the recorded prevalence of intestinal parasites was 2.2%. However, the overall prevalence of intestinal parasites in the different hospitals was 1.76% indicating that the prevalence of intestinal parasites in Jazan region is lower than that of AL-Riyadh region. Khalife (2006) attributed the low prevalence value of intestinal parasites in patients attending King Fahd hospital in Riyadh to the type of patients who are mostly urban dwellers with a high socioeconomic status (7,8,13,6)( Abdel-Hafez et al ., 1986; Qadri & Khalid,1987; Khan et al., 1989; Al-shammari et al., 2001).

Similar to other reports from the Kingdom and other countries, Giardia lambelia was the most prevalent parasite encountered in Jazan region. This could be attributed to the similarity in the socio-economic conditions and health status in these countries. The prevalence of infection with helminth parasites in Jazan region is remarkably low and coincides with reports from other regions of Saudia Arabia ( Al-Madani et al, 1989; Omar et al., 1991 ; Al-khalife, 2006). In jazan region, the low prevalence of helminth parasites could be attributed to the unfavorable ecological and other socio-cultural factors that influence survival and transmission of soil-transmitted helminthes. The combination of such factors as regular utilization of sanitary toilets for defecation by adults and children, habitual use of foot wears, a general good nutritional status and health of the people, as well as the lengthy dry seasons may account for the reduced risk of infection and reinfection.

AL-Ballaa et al., (1993) found that the overall prevalence of intesitinal parasites among children of Al-Madina district was 18.4%. The most common parasites isolated were G.lambelia (14.5%), E.histolytica (2.7%) Enterobius vermicularis (1.4%) and Ascaris lumbercoides(1%). The previous authors found that the prevalence among preschool children was highly associated with older age, rural residence, non-municipal water supply, and inadequate latrine type, low level of parental education, abdominal pain and diarrhea.

Many factors influence the prevalence of parasitic infection in Saudi Arabia. Hygienic condition may be one of the most important factors responsible for higher prevalence of parasites in the developing world (WHO, 1987). Spreading intestinal parasites among local population. The majority of expatriates in Saudi Arabia come from endemic countries such as Indonesia, India, Pakistan, Srilanka, Bangladesh and Philippines. A higher percentage of these expatriates are working in restaurants and in homes as housemaids (AL-Kyhalife, 2006). Previous stool surveys in Saudi Arabia have indicated that the parasite prevalence rate of 9.3% (AL-Saud, 1983), 25.5% (Bolbol and Mahamoud, 1984) , 24.4% (Abel-Hafez et al., 1986), 27.8% (Qadri and Khalil, 1987), and 7.6% (Khan et al ., 1987) were recorded among Saudis. Other studies on non Saudis reported prevalence rate of 41.4% among expatriates (AL-Saud, 1983). However, the overall rate of infection with intestinal parasites, in the present study, is much lower than those reported in previous comparable hospital samples. This may be due to general improvement in health services and sanitary condition of the country.

In the present study, it was found that the overall prevalence of malarial disease in patients attending five hospitals in Jazan region, at the period from January to December 2013 , was 4.85% . Two species of the genus Plasmodium were identified, P. Falciparum with a rate of 99.3% and P. vivax with a rate of 0.7%. The highest prevalence value of malaria disease in Jazan region was recorded in patients visiting Samtah hospital (7.43%) and the lowest prevalence value was found in patients of King Fahad hospital (0.44%).

According to Jazan Health authority, the number of positive cases recorded in 2000 was 3528 and then decreased to its lowest number, 182 cases in 2007 (AL-Harthi and Jamjoom 2008). In the present study, blood samples of 6188 patients attending five major hospitals in Jazan province were examined microscopically for malarial parasite. Three hundred cases were found positive with a general prevalence value of 4.85%. This indicates that the number of positive cases has extensively increased in the year 2013. The high prevalence of malaria disease in Jazan region was attributed to the continuous importation from Yamen (EL-Refaie et al., 1984; Vassallo et al., 1985; EL-Sebai and Makled, 1987; Warrell, 1993). AL-Zahrani (2007) reported that malaria occurs at

meso- to hyperendemic level in the south-western part especially in the valleys and villages and in the foothills of Sarawat Mountain (Jazan and Asir regions) where P. falciparum is common (over 90% of cases) and where rainfall is relatively abundant. In addition to the imported and border malaria, two other major technical problems face malaria control program in Saudi Arabia, the already resistance of vectors to organochlorine insecticides currently in use and resistance of P.Falciparumto chloriquine (AL-Zahrani,2007). Jazan region is one of the richest agricultural regions. It is drained several permanent wades which play a crucial role in providing perennial habitats for mosquitoes and intermittent wades which are wet enough to increase the number of breeding habitats and directly influence abundance of Anopheline vectors. The climate in Jazan region is hot and humid most of the year. Some villagers who have no electricity, particularly men, used to sleep outdoors to avoid the high indoor temperature and thus intensely exposed to mosquito bites. This coincides with the data reported in the present study where the prevalence of malaria in patients visiting Samtah hospital was the highest (7.43%) among patient of other hospitals in Jazan region. Most of the patients attending Samtah hospital are coming from rural area which lack sanitation and health services. The present study has shown that infection with malaria disease was more prevalent in winter and reached its lowest value in summer. This coincides with the breeding character of the vector host which increases in winter and decreases in summer where the temperature and humidity are high.

## CONCLUSION:

*The present study was aimed to determine the prevalence of blood and intestinal parasites of patients attending some hospitals* in Jazan region . Blood samples of 6188 patients attending 5 hospitals of Jazan region ( Jazan, Sabia , Samtah, Abu-Areish and King Fahd hospitals) were collected and examined for malaria parasites at the period from January to December 2013. Out of these samples, 300 blood specimens were found infected with Plasmodium spp. with an annual prevalence of 4.85 %. Out of 300 positive samples, 298 samples were found positive for P. falciparum with a rate of 99.3% of total infected patients, while only two samples were found positive for Plasmodium vivax with a rate of 0.7% of total positive samples. The prevalence of malaria was high in winter and low in summer. The high prevalence of malaria in Jazan region, comparable with other regions in Saudi Arabia was discussed in detail. Also, stool samples of 3343 patients attending 5 hospitals in Jazan region were collected and examined for intestinal parasites. Out of these samples, 59 samples were found positive for intestinal parasites with an annual prevalence of 1.76% . Twenty two samples were found positive for Giardia Lambelia with a rate of 39.29% of total positive samples followed by 16 positive samples of Entamoeba coli with a rate of 28.57%, fourteen positive samples of Entamoeba histolytica with a rate of 25% and 7 positive samples of Ascaris lumbercoides which recorded the lowest value with a rate of 7.14 % of total positive samples

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