

AIDS in Iraq Epidemiology and Transmission before and after 2003

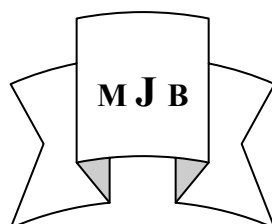
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Abstract

Aim: to determine epidemiological characteristic of all cases of AIDS that were still alive up to the 31st of Dec. 2002 and compare them with the newly diagnosed cases during the year 2004.

Patients and methods: the study was carried out in health centers that perform HIV test, and the communicable disease control center in Baghdad. The study was conducted during the year 200^o and a cross-sectional design was adopted. Demographic characteristic of patients were documented as well as the source of their infection.

Results showed that 77% of newly diagnosed cases during the year 2004-2005 were of age group 20-39 years and males constituted 84.6% of cases, and they had acquired the disease from abroad or by blood transfusion. The highest rate of cases that were still alive up to the 31st of Dec. 2003 was in age group 20-39 also, the rate of males was 68%, and 58.3% of them had acquired the disease by blood transfusion.

Conclusion: AIDS is highest among young adult males, and the disease is acquired by blood transfusion or imported from abroad. The difference between the newly diagnosed cases of 2004-2005 and those pooled up until the 31st of Dec. 2002 was that there were cases of younger age group and the disease was acquired by parenteral route mainly.

متلازمة نقص المناعة المكتسبة (الايدز) في العراق. وبائية وانتقال المرض قبل و بعد ٢٠٠٣

الخلاصة

الهدف: تحديد الخصائص الوبائية لمرض متلازمة نقص المناعة المكتسبة (ايدز) لجميع مرضى الإيدز الذين لازالوا على قيد الحياة لغاية نهاية عام ٢٠٠٢ ومقارنتها مع الحالات المشخصة حديثا خلال عام ٢٠٠٤-٢٠٠٥.

طريقة البحث: اجريت الدراسة في عام ٢٠٠٥ في المراكز الصحية التي تقدم الفحوصات المختبرية التشخيصية لمرض الأيدز و مركز السيطرة على الأمراض الأنتقالية في بغداد. اجريت الدراسة باستخدام الشريحة المقطعية كطريقة للدراسة. المعلومات شملت الخصائص الديموغرافية للمرضى ومصدر الإصابة.

النتائج اظهرت انه ٧٧% من الحالات المشخصة في عام ٢٠٠٤ (١٣ حالة) كانت تنتمي للفئة العمرية ٢٠-٣٩ سنة ونسبة الذكور ٨٤,٦% وقد اكتسبت هذه الإصابات حينما كان المريض خارج القطر. كان اعلى معدل اصابات للحالات المتبقية على قيد الحياة لغاية نهاية عام ٢٠٠٢ هم من الفئة العمرية ٢٠-٣٩ سنة و ٦٨% من الحالات كانت من الذكور و ٥٨,٣% اكتسبو المرض بسبب نقل الدم. **الاستنتاجات:** مرض الأيدز في العراق يصيب غالبا الشباب من الذكور وينتقل عن طريق الدم او مستورد من خارج القطر. الفرق بين الحالات التي على قيد الحياة لغاية ٣١ كانون الأول من عام ٢٠٠٢ والحالات المشخصة حديثا في ٢٠٠٤ هو وجود مرضى في عمر اقل من ٢٠ سنة ومعظم الحالات كانت بسبب نقل الدم.

Introduction

The global AIDS epidemic continues to grow and there is concerning evidence that some countries are seeing

resurgence in new HIV infection rates which were previously stable or declining. There were 4.3 million new infections in 2006 with 2.8 million

(65%) of these occurring in sub-Saharan Africa and important increases in Eastern Europe and Central Asia, where there are some indications that infection rates have risen by more than 50% since 2004[1]. HIV data from North Africa and the Middle-East are very sparse. Best estimates are that around 400,000 adults and children were living with HIV in this region at the end of the year 2000. While adult HIV prevalence is at present low (an estimated 0.2%), recent data from Algeria and Sudan give warning signs that HIV may be spreading into the general population[2]. Conflict, displacement, food insecurity and poverty make affected populations more vulnerable to HIV transmission[3]. AIDS in Iraq had started since 1986 when hemophilic children were treated with a human product infected with AIDS. By the end of the year 2000, the number of AIDS cases had reached 244 cases, and 84% of them were hemophiliac children[4]. This study aims to determine epidemiological characteristic of all case of AIDS that were still alive up to the 31st of Dec. 2002 and compare them with the newly diagnosed cases during the year 2004 to detect any change in the mode of transmission of the disease.

Methods

This is a cross-sectional study conducted in 4 centers in Baghdad that perform HIV tests, and these are:

- Al-Sheikh Omar primary teaching health center: HIV test here is a routine for couples to be married.
- National blood bank: for blood donors
- Communicable disease control center (AIDS section): for people coming from abroad.
- Renal dialysis center in the Medical city

Data collected included results of HIV tests performed in the above mentioned centers during the year 2004-2005, and also the demographic characteristic of the examined people. Data about cases that were still alive up to 31 December 2002 were taken from the archives of the Communicable diseases control center in Baghdad.

Collection of data started from 1st of March 2005-30th of May 2005. Data was tabulated as frequency tables and percentages.

Results

Table 1 shows that frequency of newly diagnosed cases of AIDS in 2004-2005 distributed according to age group was 77% of cases in age group 20-39 and 23% were above 40 years, no cases reported below 20 years.

Table 2 shows that frequency of cases with AIDS that were still alive up to 31 Dec. 2002 was 66.6% among age group 20-39 years and 18.1% were above 40 years, the table also shows that 15.3% of cases were below 20 years of age.

Table 3 shows that the newly diagnosed cases at the year 2004-2005 were mainly males in a rate of 84.6%, while the rate of females was 15.4%.

Table 4 shows that males constituted 68% of cases that were still alive at the end of 2002, while females were in a rate of 32%.

Table 5 shows that 38.5% of cases diagnosed in 2004-2005 had contracted the disease while they were abroad, while 30.8% had the disease through blood transfusion, Transmission between spouses constituted 23% of cases, and illegal sex was responsible for 7.7% of cases.

Table 6 shows that cases in 2002-2003 had been infected through blood transfusion in a rate of 58.3%, while infection by illegal sexual contact was in a rate of 13.9%, no imported cases were registered.

Table 1 Frequency of new cases reported in 2004-2005 distributed according to age group.

Age group	No. of cases	percentage
1-19	0	0
20-39	10	77
40-59	3	23
Total	13	100

Table 2 Distribution of cases pooled up to 31 Dec. 2002 according to age group

Age group	No. of cases	percentage
1-19	11	15.3
20-39	48	66.6
40-59	13	18.1
Total	72	100

Table 3 Frequency of new cases reported in 2004-2005 distributed according to gender

Gender	No. of cases	percentage
Male	11	84.6
Female	2	15.4
Total	13	100

Table 4 Frequency of cases pooled up to 31 Dec. 2002 distributed according to gender

Gender	No. of cases	Percentage
Male	49	68
Female	23	32
Total	72	100

Table 5 Distribution of cases reported in 2004-2005 according to mode of transmission

Mode of transmission	No. of cases	percentage
Illegal Sexual contact	1	7.7
Between spouses	3	23
Blood transfusion	4	30.8
Mother to infant	0	0
Travelers	5	38.5
Total	13	100

Table 6 Distribution of cases pooled up to 31 Dec. 2002 according to mode of transmission

Mode of transmission	No. of cases	percentage
Illegal Sexual contact	10	13.9
Between spouses	12	16.7
Blood transfusion	42	58.3
Mother to infant	8	11.1
Travelers	0	0
Total	72	100

Discussion

Data on HIV prevalence in different countries are compiled by UNAIDS. They vary greatly in quality but give us some idea of the magnitude of the problem and trends [5]. In Iraq reports from the WHO had stated that there are less than 1000 cases of AIDS reported up to 2004 [6].

Results of this study revealed that most of patients diagnosed in 2004-2005 were of age group 20-39 years which is the sexually active period of human live and sexual transmission is by far the most common mode of transmission globally [2] so people at this age group are more vulnerable to infection with AIDS. This distribution of age coincide with findings of other researchers that around half of all global HIV transmissions are to people under 25 years of age [7]. Men have higher rate of infection than females which is due to having sex outside matrimony bondage, also hemophilic patients are at high risk for acquiring infection with HIV through exposure to contaminated blood and its products [8] and it is a disease of males usually. In USA men are more infected than women as it is more common in drug injectors and homosexual men (63%) [9], but in Africa males and females are infected equally because the virus spreads mainly through sex between women and men [10]. Most of the new cases discovered in 2004-2005 had acquired the infection while they were abroad (38.5%). These patients had stayed for many years outside the country and had returned after 2003. The second most frequent mode of transmission was by blood transfusion which is due to high need for blood transfusion in the last 2-3 years from violence acts and the presence of untested blood or the rush to give the blood without testing it.

In comparison to the cases that were still alive up to 2003, although age group 20-39 years had the highest rate of infection

as in cases of 2004-2005 but there is a high rate of infection among younger age group as well (less than 15 years) while in the years 2004-2005 the rate among this age group was zero. This finding is due to the infected factor VIII that was given to hemophilic patients who are usually children; and in the year 2000 84% of AIDS cases were hemophilic patients, and as hemophilia is a disease of males 65% of cases were of course males. There were no imported cases of AIDS in 2002 because traveling abroad was restricted and Iraqis living broad did not visit Iraq at that time. Transmission of the disease from mother to infant constituted 11.1% of cases in 2002 while the rate in 2004-2005 was zero. The rate of vertical transmission of AIDS in Europe and USA was 15-30% in 1993 [11].

Conclusion and Recommendations

AIDS in Iraq is highest among young adults males, and patients contract the disease mainly through sex (heterogonous sex), or by blood transfusion and its products. Transmission of the disease between spouses is also common. The difference between the epidemiological features of the disease in 2004-2005 and 2002 is the presence of imported cases in 2004-2005 and the absence of cases in younger age group (below 20 years).

Based on the above findings researchers recommend the followings:

1. Examination of all travelers who had stayed for longer than three months abroad to discover imported cases and take the necessary arrangements required to prevent spread of the disease.
2. examination of couples intending to marry to avoid transmission between spouses
3. Examination of donated blood and its factors for HIV before giving it to any patient and restrict blood transfusion to the necessary limit only.

4. Obligatory routine examination of pregnant women for HIV to prevent vertical transmission of the disease.

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