

# Do Attendances to the Medico-legal Directorate in Baghdad Referred as Alive Police Cases Have HIV Infection?

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## Abstract

**Background:** This is the first study in Iraq that was carried on alive police cases referred to be examined in the medico-legal directorate (M.L.D.) of Baghdad such as victims of violence and sexual assaults for HIV infection. Reaching subgroups of population that have risky behavior for HIV infection is difficult for the time being in our community due to reasons related to culture, religion & security state

**Objectives:** To find the prevalence of HIV infection among the attendance to the M.L.D. of Baghdad referred to as alive police cases.

**Method:** This study had involved (76) cases (45) were males and (31) females among various alive police cases that referred to M.L.D. of Baghdad during the period from 1\1\2011 till 31\10\2011. A written agreement had been taken from all involved individuals. Blood samples were taken, centrifuged, deeply frozen, and tested in specialized HIV laboratory using ELYZA technique EIA Test Kit Laboratories Tes Forsight Acon USA lot; 1105010.

**Results:** All of the (76) tested samples were negative for HIV infection.

**Conclusion:** The results of this study supported the general impression that Iraq considered as a low prevalence country to HIV infection, even in high risk groups.

**Key Words:** Medico-legal directorate, Alive police cases, HIV infections.

## Introduction

Many forensic situations involve drug abusers and persons with promiscuous sexual behavior, where the statistical risk of HIV and hepatitis infection is markedly greater than in general population. This poses a risk to pathologist and laboratory staff. <sup>1</sup>

In 1981, a new disease syndrome appeared in human populations in the United States and elsewhere characterized by a deficiency in the immune system <sup>(2,3)</sup>.

Two years after the recognition of AIDS, the causative agent, a human retrovirus in the lentivirus

family, was identified <sup>(4-6)</sup>. Early observations had indicated this virus was spread through intimate sexual contact (e.g., genital fluids), blood and blood products, and through mother-to-child transmission <sup>7</sup>. Among the above mentioned examples are medico-legal cases that may be examined by forensic doctors as alive police cases referred from the concerned authorities to the medico-legal centers. <sup>8</sup>

Acquired Immune Deficiency Syndrome (AIDS) is the late clinical stage of the Human Immunodeficiency Virus (HIV). It weakens the immune system and makes

the human body susceptible to and unable to recover from other opportunistic diseases. Consequently, it may lead to high rates of deaths of certain people and worldwide wreaking devastation, involving millions of people and communities.<sup>9</sup>

Three decades after the first description of AIDS, an estimated 34.0 million (uncertainty range 31.6–35.2 million) people were living with HIV, 2.7 million (uncertainty range 2.4–2.9 million) had become newly infected with HIV over the previous year, including 390 000 children, and 1.8 million (uncertainty range 1.6–1.9 million) HIV-infected persons died . More than two-thirds of HIV infections, roughly 22.9 million persons, were in sub-Saharan Africa, which also accounted for close to 80% of women and 90% of children living with HIV. South and south-east Asia were home to some 4.0 million HIV-infected persons, and the Americas, including the Caribbean, to about 3.0 million. Although HIV/AIDS has caused appalling mortality in MSM and IDUs, the experience of sub-Saharan Africa has made HIV/AIDS the greatest challenge to global health in modern times. Moreover, there has been a severe secondary epidemic of HIV-associated tuberculosis, with an estimated 350 000 deaths among the 1 100 000 persons affected by both infections in 2011.<sup>10</sup>

Despite much progress on understanding HIV epidemiology globally, the Middle East and North Africa (MENA) stands as the only region where knowledge of the epidemic continues to be very limited and subject to much controversy<sup>11</sup>.

There is considerable evidence on HIV prevalence and risk behavior practices among IDUs (Injecting drug users) , MSM, (Men who have sex with men) and FSWs (Females sex Workers) in MENA.<sup>12</sup> And this has also a great concern from the medico-legal point of view<sup>13</sup>

### Patients and Method

The study has been performed in Baghdad, the capital of Iraq in the Medico-legal institute after the achievement of the approval from the appropriate health manager authority.

The study has been started in the beginning of 2011 and extended to the end of October of the same year.

The respondents' that has been included in this study were alive police cases referred to that institute, sample of five milliliters of blood has been aspirated from

each body in concern according to his acceptance and voluntarily, putting in mind freedom and confidentiality, the blood that was aspirated has been separated and kept in deep freeze till transportation maintained by cool box to the HIV lab.

ELYZA technique EIA Test Kit Laboratories Tes Forsight Acon USA lot; 1105010 was implied.

It Important to mention that Medico-legal Institute Receive medico-legal cases from both Baghdad Major sectors; Al-Karkh and Al-Rusafa.

### Results

A total of 76 respondents were involved, 45(59.22%) males and 31(40.7%) females as shown in figure (1).

Of the study group,43(56.5%) were married ,while 33(43.4%) were unmarried as shown in figure(2).

Various medico-legal cases had been tested. physical trauma constituted the most important cause as their cases were 34(44.7%),followed by cases of sexual abuse including virginity examination and homosexual (sodomy) cases, in addition to other causes of referral as shown in table (1).

The result of all samples have been tested were negative to HIV.

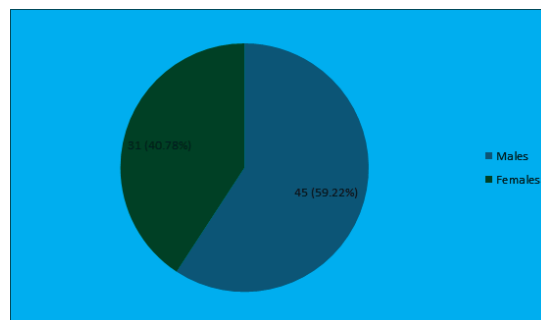


Figure (1): Distribution of the study sample according to sex.

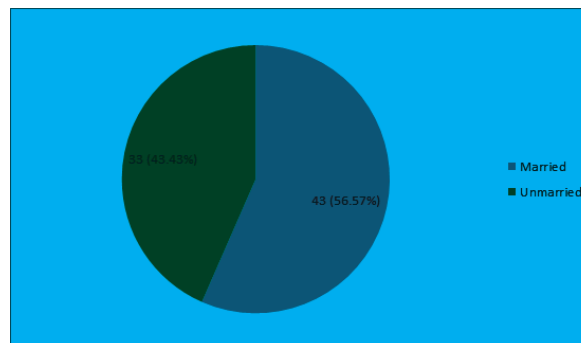


Figure (2): Distribution of the sample study according to marital status

**Table (1): Distribution of participants according to the cause of referral.**

Type of case	Number and percentage
Physical trauma	34 (44.7%)
Sexual abuse: Virginity examination Homosexual examination	28 (36.8%): 10 18
Age estimation	5 (6.5%)
Child nursing	4 (5.2%)
Alcoholism	3 (3.9%)
Psychiatric assessment	1 (1.3%)
Marriage capability	1 (1.3%)
Total	76 (100%)

### 1 Discussion

Iraq is classified as a low prevalence country to HIV infection in the region together with other Arab countries and this was attributed to religious and ethical constrictions and low prevalence of illegal sexual practice. Even those who practice illegal sex have no or rare contact with higher risk people from higher risk areas in the world Probably the immune state of people in this region has a role in this low prevalence which had been noticed in other microbial and viral diseases such as those affecting the intestinal tract.<sup>14</sup>

Reaching subgroups of population that have risky behavior is so crucial but it is difficult for the time being due to reasons related to culture of community ,religion & security stat ,so there is shortage in learning about the groups concerned .

Although there is no accurate data on the number of victims of sexual violence who have been infected with HIV as a result of sexual assault, the risk of HIV infection from sexual violence is relatively low.<sup>15</sup>

This study might help for certain extent particularly most of the respondents' included in this study having sexual abuse in addition to violence activities as shown in table (1). This study also helps to clarify the important role of forensic practice in this vital subject.

It is important to mention that this study is the first one to be performed on alive medico-legal cases in Iraq so there is no previous study to compare with.

### Conclusions

Negative HIV testing on cases referred to the Medico-legal institute in Baghdad as police cases supports the general impression that Iraq considered as a low prevalence country to HIV infection ,particularly there were cases having risky behaviors that had been included in the study group. This study is not only supporting the Iraqi surveillance but it penetrates by indirect way the risky subgroups which is not always easy to reach. This study also could be regarded as an initial step to state those laboratories tests used to detect HIV infections as routine or mandatory especially in high risk groups of alive police cases examined in the medico-legal centers in Iraq like those involved in sexual assaults in cooperation with specialized AIDS centers to catch up those cases, as this thing is of great value regarding the preventive measures. In spite of low prevalence of HIV infection in Iraq that we hope it remains, but we are not sure of that.

**Financial Disclosure:** There is no financial disclosure.

**Conflict of Interest:** None to declare.

**Ethical Clearance:** All experimental protocols were approved under the College of Medicine \ University of Baghdad, Iraq and all experiments were carried out in accordance with approved guidelines.

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