ANIL AGGRAWAL'S
Internet Journal of Forensic Medicine and Toxicology
The world's first online journal devoted entirely to forensic medicine and toxicology · Published 1 January and 1 July

VOL. 8, NO. 1
Downloaded from www.anilaggrawal.com · ISSN 0972-8074 (Online) · https://www.anilaggrawal.com/ij/vol_008_no_001/others/editorial.html

Editorial

Ref: Fernandes CL. HIV and Forensic Medicine 2007 - An Emerging Problem (Editorial). *Anil Aggrawal's Internet Journal of Forensic Medicine and Toxicology, 2007*; Vol. 8, No. 1 (January - June 2007): ; Published January 1, 2007,

HIV and Forensic Medicine 2007 - An Emerging Problem

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Never before has the medical profession been faced with such complex issues as those posed by the HIV pandemic. With UN figures of thirty eight million people infected worldwide[1]; it is a pandemic of staggering proportions. South Africa is in the throes of one of the most severe HIV epidemics in the world. According to UNAIDS figures for late 2005, five and a half million people are living in South Africa with HIV. Almost a thousand deaths from AIDS occur daily here. A 2004 survey found that South Africans spent more time at funerals than they did shopping or having their hair cut or at barbecues. This study also showed that twice as many people had been to a funeral in the past month than had been to a wedding.[2]

With these figures one can quite easily see the risk posed to medical personnel and in the context of this journal for forensic pathologists, scientists and anatomists. Should sudden unexpected death or death by violence occur in these infected people then the risk of transmission to those in the field of forensics so increases. Occupationally acquired infection would have a devastating impact on the medical staff and so the need to identify whether the deceased is positive or not sometimes becomes imperative.

...the forensic pathologists seriously contributes in the investigation from the early phase aiming to provide scientific opinion for the sudden death and in criminal cases to give reliable and clear evidence in order to found the involvement of the assailant...

The high risk necropsy can be defined as " the post-mortem examination of a deceased person who has had or is likely to have had, a serious infectious disease that can be transmitted to those present at the necropsy, thereby causing them serious illness or premature death.".[3] A patient dying suddenly, unexpectedly or violently would therefore be a high risk necropsy for all medical staff involved.

On one hand HIV infection is incurable and likely to be fatal. On the other hand society has determined that HIV sufferers have certain rights associated with this infection and that they have to be counselled and may not be tested without specific permission unlike some other serious and fatal infections. This leads to underreporting, misdiagnosis and incorrect information regarding the HIV status of patients as some deaths from AIDS related complications are reported as a result of other causes. However due to the social stigma often experienced by patients and incorrectly associated with the disease, this privacy and protection is necessary. This would lead us to believe that the number of patients dying from AIDS is far higher than reported. It is not difficult to see the problems arising there from.

Necropsy of patients that have died from AIDS can be very important as it can allow for clinicopathalogical follow up. One might need to take some tissue samples for research or assess the toxicity of a trial drug for example.

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However there is no evidence that HIV infection is easily acquired in the mortuary. Although occupational exposure to HIV is reported as uncommon in world literature and it is not easy to become infected, it is presenting a growing problem- certainly in countries where the HIV figures are rapidly spiralling out of control.

To minimize the risk of seroconversion after occupational exposure, should it occur, prophylactic treatment should be made readily available. This brings us to the point, should pre- necropsy testing for infections such as HIV be routine in countries with high HIV figures? Such testing would enable heath care workers to better protect themselves and to be extra vigilant. Considering the ethics surrounding HIV infection it is a subject that requires much focus as it touches on issues such as the rights of the deceased and their families. Imagine the consequences for the family if this information became available - possible loss of insurances, social or moral judgement (which although unacceptable sadly does exist) etc. In third world healthcare systems who would pay for routine HIV testing of the corpse? The costs involved would seem to be another issue.

If occupational exposure does occur then the risk of seroconversion is directly related to the viral load of the patient. In the mortuary this is significant because if-the patent dies of AIDS then one would expect very high viral titres at necropsy. These HIV titres would be expected to be higher than the titres of patients living with HIV.

...It also should be known that viable HIV2 has been isolated from blood obtained 16.5 days after death. This means that delaying necropsy in order to enhance safety would not work. Other reported studies have shown for example that viable HIV can he isolated from cranial bone, cerebrospinal fluid and brain up to five days after death...

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For now health and safety protocols must be strictly adhered to in order to minimize the risks posed by the infected cadaver. We should be constantly aware of the disease and protect ourselves as best we can when working with human tissue. Bear in mind that HIV figures in certain parts of the world are spiralling and in the case of sudden or unexpected or violent death, the presence of HIV could well exist. Being aware and being vigilant about safety protocols is the best that we can currently do to protect ourselves as healthcare workers.

There are many issues surrounding HIV infection that prove to be an ethical and legal minefield for those of us in the fields of Forensics, Anatomy and medicine in general.

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