

AN OBSERVATIONAL STUDY OF THE HIV/AIDS EPIDEMIC IN MALTA

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ABSTRACT

An observational study was carried out comparing the HIV/AIDS epidemic in Malta to that in South Glamorgan between 1984 and 1992. In both locations the important routes of transmission were use of contaminated blood products and unprotected sex. In both Malta and South Glamorgan 21 AIDS cases had died. The average time of survival from testing HIV positive and death in both locations was 28 months for those who had acquired the virus through blood products. However, for sexually acquired HIV, the average survival in Malta of 9 months contrasted with 33 months in South Glamorgan. Medical care was comparable so this fourfold difference in survival was likely to be due to later presentation of sexually acquired HIV cases in Malta. An HIV knowledge and behaviour survey of young Maltese in a local nightclub found that despite 90% of those questioned knowing that it was possible to contract HIV through unprotected sex, 36% of sexually active men questioned never used a condom.

Keywords: HIV, epidemiology, behaviour.

INTRODUCTION

As a medical student elective project, an observational assessment of the HIV/AIDS epidemic in Malta was undertaken. All aspects of the disease were investigated using South Glamorgan (the Health Authority of Cardiff and the surrounding area in South Wales) where both the size of the population and the nature of the HIV problem was similar, as a comparison to highlight points of interest. By comparing these two very different locations with a similar scale of problem, a fuller understanding of the problems pertaining particularly to Malta was achieved.

METHODS

The data and clinical information for this descriptive study were gathered during two clinical attachments; with the Boffa Hospital, Malta, 1st-30th August 1992 and with the University Hospital of Wales, Cardiff, 7th-20th September 1992.

The study was made up of two parts. Firstly, an observational exercise was carried out to compare aspects of the epidemic in Malta and South Glamorgan. The second component was an HIV knowledge and behaviour survey carried out in a Maltese night club, *The Paceville Survey*.

1. Observations on the Maltese HIV/AIDS epidemic by personal enquiry.

Data concerning all those who had died from HIV/AIDS related causes in both locations were collated and compared. No statistical method was applied to these as in both locations the numbers were small and direct comparison was possible. The Maltese epidemiological data presented here were derived from information provided by the Health Information Unit, St. Luke's Hospital, Malta, that of South Glamorgan was from the Genitourinary medicine department, Cardiff Royal Infirmary, and the Haemophilia Unit, University Hospital of Wales, Cardiff. Individuals involved in HIV/AIDS care at every level in both locations were interviewed to gain an understanding of clinical cases and an overview of the epidemics in the two locations. These included the Maltese Minister of Health, consultants, health educationalists, health advisors and the patients themselves.

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2. The Paceville Survey

The *Paceville Survey* was the first study of this kind to be carried out in Malta. The aim of the survey was to determine the level of knowledge about HIV and AIDS issues among young Maltese, their degree of sexual activity, and whether their knowledge influenced their sexual behaviour in terms of use of barrier methods. The survey was intended to be a pilot study and at the suggestion of the Maltese Minister of Health it was decided to use as the population of the study, one sector of the population considered to be particularly vulnerable to the risk of contracting HIV, those young Maltese who mixed with tourists.

The study was carried out in a busy nightclub known to be popular with both Maltese and tourists. The interviews were carried out in Maltese, anonymity was assured and each subject was asked only four simple questions. There was no attempt to ascertain the sexual orientation of the subjects. The selection of subjects from the nightclub population was carried out by taking one person (generally the one with his/her back to the approach of the interviewer) as the subject from each social group of 4 to 8 people. Eighty three Maltese subjects were selected in this fashion from an estimated population of 600, and asked if they would be willing to participate in an anonymous survey. Seventy nine agreed, and were separated from their friends to reduce any peer pressure which might affect the validity of answers given. The subjects were told that a British medical student was carrying out an anonymous survey as part of a project on HIV. Their sex was noted and the following questions asked:

1. What is your age?
2. Do you have sexual intercourse with
 - a) Maltese
 - b) Tourists?
3. Do you think you could catch HIV from sexual intercourse?
4. Do you use a condom? If the subject had been practising unprotected sex, the opportunity was taken to inform them about methods for reducing risky behaviour.

In *AIDS the Second Decade*¹ the editors stress the critical nature of behaviour surveys to the understanding of the HIV epidemic. Such surveys are the only method for obtaining essential information about the epidemiology of AIDS and HIV, the behaviours that spread HIV, and the effectiveness of AIDS prevention efforts.

There is obvious difficulty with validating results from such surveys as the subject matter covers

actions which are carried out in private, however, as long as certain guidelines are adhered to, there is evidence that independently conducted surveys of aspects of sexual behaviour produce reassuringly similar results.

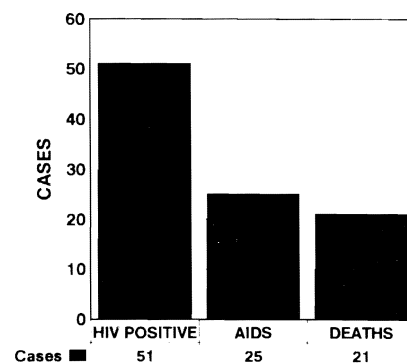
An important opportunity for error in these studies arises if a large proportion of subjects refuse to take part in the survey. Another concern is that subjects may not give truthful information due to a combination of factors, including embarrassment or misunderstandings while answering questions about personal behaviours which are rarely discussed in the open. A successful survey is one which assures anonymity, is simple, is carried out in the vernacular and which does not pursue embarrassing lines of questioning. It was hoped that by adhering to these principals, the results would reflect the true situation.

RESULTS

1. Epidemiological comparison between Malta and South Glamorgan.

In both Malta and South Glamorgan, 21 HIV/AIDS related deaths had occurred by September 1992, and the number of HIV positive people and those with AIDS were at a similar level (fig. 1).

1. MALTA



2. SOUTH GLAMORGAN

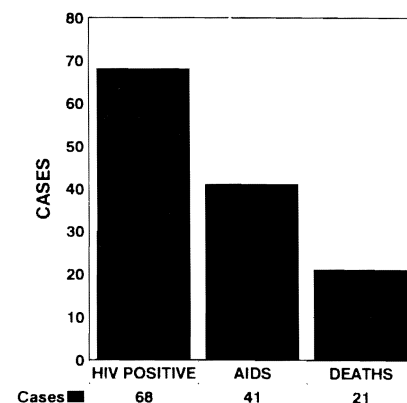
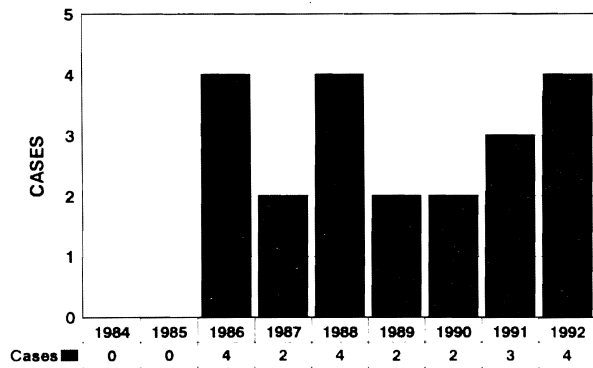


Figure 1 - Cumulative HIV/AIDS cases of local residents (September 1992)

1. MALTA



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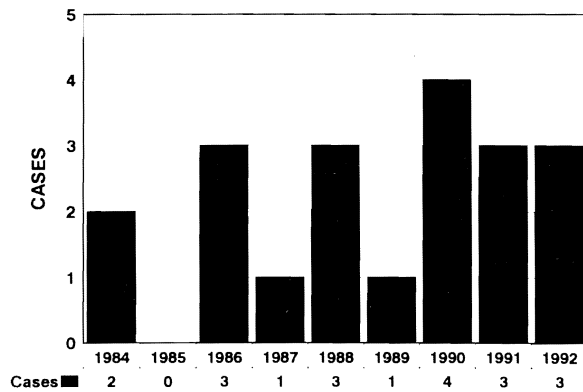


Figure II - HIV/AIDS related deaths by year

The first HIV/AIDS related deaths occurred in Malta and South Glamorgan in 1986 and 1984 respectively. Between one and four deaths were due to HIV/AIDS related causes each year in both locations (See figure II). In both Malta and South Glamorgan, the important transmission categories for HIV spread were homosexuals and haemophiliacs, with heterosexual spread, intravenous drug use, and materno-fetal transmission having little impact (see figure III). In both locations, the mean period of survival from time of being known to the authorities as being HIV positive to death for those who had acquired the virus from contaminated factor VIII was 28 months (see figure IV). For those who had acquired the virus sexually, (both homosexuals and heterosexuals), the mean period of survival in Malta from being known to the authorities as being HIV positive was only 9 months, compared to 33 months for the same group in South Glamorgan. Of the Maltese, 75% had died within 12 months of presenting, compared to 10% of those in South Glamorgan (see figure V).

2. Results of the Paceville Survey

QUESTION 1. "What is your age?"

				TOTAL
YEARS	<20	20-30	>30	
MALE	12	34	11	57
FEMALE	15	6	1	22

QUESTION 2A.

"Do you have sexual intercourse with Maltese?"

	YES	NO
MALE	40	17
FEMALE	7	15

Analysis of positive answers by age:

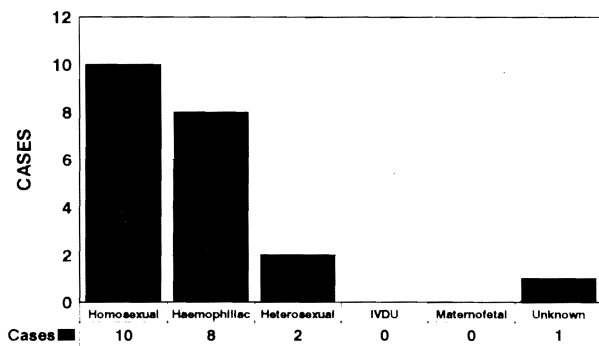
YEARS	<20	20-30	>30
MALE	9	22	9
FEMALE	6	1	0

QUESTION 2B.

"Do you have sexual intercourse with tourists?"

	YES	NO
MALE	22	35
FEMALE	1	21

1. MALTA



2. SOUTH GLAMORGAN

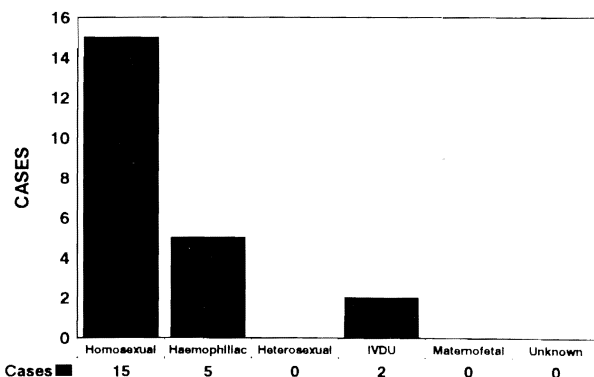
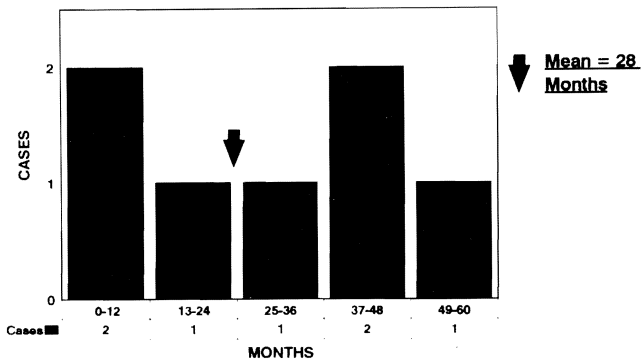


Figure III - HIV/AIDS related deaths by transmission category

1. MALTA



2. SOUTH GLAMORGAN

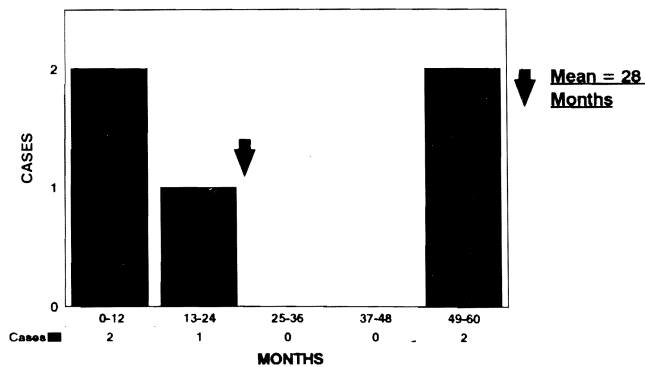
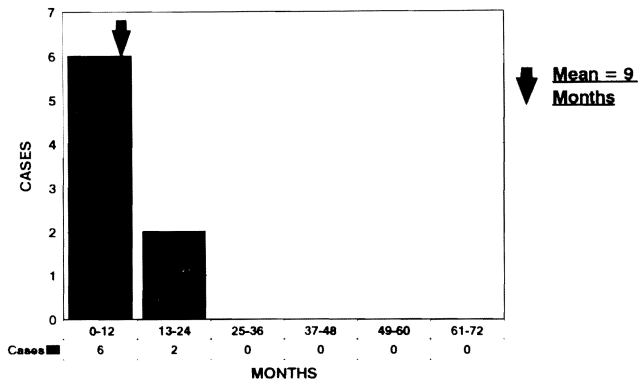


Figure IV - Survival in months from date of HIV positive tests for Haemophilic cases

1. MALTA



2. SOUTH GLAMORGAN

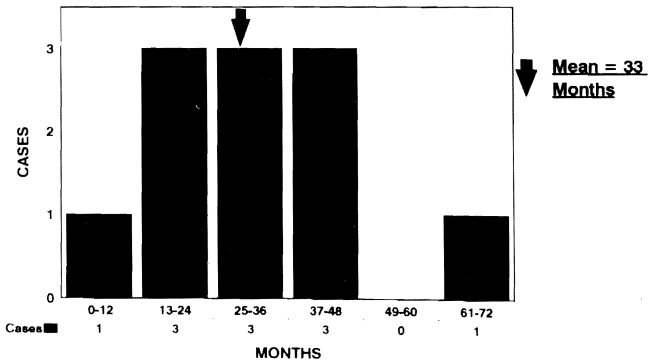


Figure V - Survival in months from date of HIV positive tests for sexually transmitted cases

Analysis of positive answers by ages

YEARS	<20	20-30	>30
MALE	3	10	9
FEMALE	1	0	0

All who gave a positive answer to 2b were also positive for 2a, so all those having sexual intercourse with tourists were also involved with Maltese.

QUESTION 3. "Do you think you could catch HIV from sexual intercourse?"

	YES	NO
MALE	50	7
FEMALE	18	4

Into the 'no' category also went those who were uncertain and those who thought they would be able to tell whether or not someone was infected.

QUESTION 4. "Do you use a condom?" (only asked of those who were sexually active)

	Always	Sometimes	Never
MALE	18	8	14
FEMALE	2	2	3

Analysis of 'never' responders by age.

YEARS	<20	20-30	>30
MALE	8	6	0
FEMALE	3	0	0

Many 'sometimes' respondents volunteered that they would use a condom with a tourist, but wouldn't bother with a Maltese whom they knew.

Many of those who always use a condom commented that they had only started doing so recently due to increased awareness of HIV risks.

DISCUSSION

Comparison of the data of the HIV/AIDS epidemics in Malta and South Glamorgan up to September 1992 demonstrated a striking similarity. The two had experienced the same number of HIV/AIDS related deaths, had comparable estimates of HIV positive patients, were at a similar stage in the epidemic, had the same important transmission categories, and, although the numbers were small, had the same period of survival for those who had acquired the virus from contaminated factor VIII. This similarity was surprising given the very different cultures in the two locations; the Maltese being Catholic, mainly living within close knit villages, whereas South Glamorgan consists of the more cosmopolitan conurbation of Cardiff with a highly mobile and poorly structured society.

The key difference found between the two was the nearly fourfold discrepancy in survival between presenting to the health authorities with a positive HIV test and death for those who had acquired the virus sexually; the Maltese on average surviving for only 9 months compared to the 33 months of those in South Glamorgan. Two factors may account for this discrepancy; differences in medical facilities and treatment policies or the later presentation of HIV positive people in Malta.

The treatment of patients in both sites was observed to follow similar treatment policies. In both CD4 counts were monitored, zidovudine was given when CD4 counts fell below $300 \times 10^6/l$, and Pneumococcal carinii pneumonia prophylaxis started at less than $200 \times 10^6/l$. In both locations HIV/AIDS patients received their medication free. Given the identical period of survival of haemophiliacs in the two centres, it was unlikely that differences in medical facilities could have accounted for the poor survival of the Maltese patients with sexually acquired HIV. Late presentation of Maltese patients who had acquired the virus sexually was more likely to have accounted for this difference in survival. Indeed, HIV/AIDS workers in Malta confirmed that patients rarely presented until they were symptomatic. Many were found to be HIV positive only while being investigated as inpatients, and the HIV counsellors frequently had to carry out their first session at the bedside.

In South Glamorgan, most patients presented for counselling and testing at an earlier stage, while they were still asymptomatic. There are two explanations which could have accounted for late

presentation of sexually acquired HIV cases in Malta compared to South Glamorgan: Firstly, people may have been ignorant of HIV and AIDS issues and only presented when they developed symptoms. Malta is a Catholic country, and in the view of the Church any extramarital sex is a sin. Although heterosexual and homosexual liaisons do occur, people are loath to admit to such behaviour. This makes effective educational targeting of risk groups impossible. The view of one patient interviewed was that there are still practising homosexuals who do not know what AIDS is in Malta. This contrasts with the situation in South Glamorgan where there is an established well informed gay community, large enough to support 3 clubs and 2 pubs. Secondly, people may not have presented earlier in Malta because they are concerned about the stigma they and their family may be subjected to if people were to know their HIV status. This would be more likely to occur in the close knit village communities of Malta than in the more anonymous conurbation of Cardiff. The late presentation of HIV cases in Malta may have serious ramifications. Individuals do not receive individual education and encouragement from health professionals regarding their sexual behaviour at a time when they are well and sexually active so what is considered to be a vital component of the prevention of HIV spread in South Glamorgan is not available to the Maltese.

Given the difficulties of targeting people involved in risky behaviour, a broad ranging approach to education regarding HIV issues seems the only solution. At the time of the study, the Maltese Health Department was carrying out national educational campaigns in schools, press and television, informing the population of the disease, how it is spread, how to prevent infection, and encouraging people who thought themselves at risk to come forward for counselling and testing. The results of the Paceville survey can be used to assess the success of these education campaigns amongst a small group of young people. Amongst those interviewed, there was a reasonable understanding of HIV issues, with 90% believing it possible to contract HIV through sexual intercourse. There was a high level of sexual activity, with 70% of males questioned being sexually active with Maltese, and 40% with both Maltese and tourists. 36% of sexually active males interviewed never used a condom. These results show that there had not been universal acceptance of the health education messages, although the fact that 46% of males always used a condom should be seen as encouraging against

the background of a Catholic society with no tradition of condom use for contraception.

CONCLUSION

Between 1984 and 1992, Malta's HIV epidemic was of a similar size to that of South Glamorgan with sexual transmission being the main concern for the authorities. This study found that Maltese who had acquired the virus sexually presented very late in the course of the disease so health care workers were not given the opportunity to encourage a change in sexual behaviour while the HIV positive person was still well and sexually active. "Education regarding HIV/AIDS issues has been partially successful, with a reasonable

general knowledge amongst young sexually active Maltese. However, many of these young people are not heeding advice by protecting themselves with condoms.

Unless a change is effected by firstly encouraging abstinence or use of barrier methods and secondly ensuring early counselling and testing in full confidence for those who may have been exposed to the virus, the sexual spread of HIV may continue unchecked in Malta.

This study was presented by the author at the Second Maltese Medical School Conference at Qawra, Malta on Saturday, 21st November 1992.

Reference

1. AIDS The Second Decade. Miller Hg, Turner CF, Moses LE. National Academy Press. 1990.

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