Reference

2651

To all Med SEB Professional Staff

AIDS

I attach a paper on AIDS, as promised at the Divisional Meeting.

GRO-C

DIANA WALFORD

MED SEB

Room GRO-C

Ext GRO-C

28 June 1983

THE PART COUGARD DOES NOT RELATE TO THE MATTERS IN RUESTION

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DR. Reyman,

I found this paper while sorting out my cabinet. It may have been the first Departmental report on AIDS.

GRO-C: A Horn

9 March 1990

ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS)

AIDS - A NEW DISEASE

Aids is a newly recognised disease which was first identified in 1981 when the Centers for Disease Control in Atlanta, Georgia, USA, noted an increase in the occurrence of a rare cancer (Kaposi's sarcoma) and of opportunistic infections (that is, infections not usually occurring in patients with normal immunity) in promisduous homosexual males.

SYMPTOMS

The disease comes on insidiously, with non-specific symptoms such as weight loss, fever, malaise and enlarged lymph glands. There is usually considerable delay between the occurrence of these early symptoms and the onset of the specific disease - such as Kaposi's sarcoma - which provides a clue to the diagnosis. The mortality is at least 40% and there is no known cure.

AIDS IN THE USA

Some 1,450 cases of ATDS have been reported to the Centres for Disease Control. There is thought to be considerable under-reporting, partly due to failure to diagnose less typical or milder cases.

About 75% of the American AIDS cases have occurred in promiscuous male homosexuals. It has been estimated that the incidence of AIDS in sexually active male homosexuals with multiple sexual partners (referred to the vernacular as "fast-lane gays") is 1 in 150 compared with 1 in 1,000-1,500 in the homosexual population overall.

Homosexuals, together with three other distinct groups of individuals, comprise the so-called four 'H' list of those particularly susceptible to the disease viz:

Homosexuals 75%
Heroin addicts 13%
Haitian Immigrants 6%
Haemophiliacs 0.7%

In addition, a small number of children, the off-spring of intravenous drug abusers or AIDS sufferers, have contracted AIDS. Only 6% of all cases have been in females, of whom more than half were drug abusers and a number were the sexual partners of bi-sexual males with AIDS. A handful of cases have developed in recipients of ordinary blood transfusions and these have provided valuable evidence to indicate that the incubation period for the disease may vary from several months up to four years.

SPREAD OF THE DISEASE

The pattern which emerges is of a disease which appears to be transmitted predominantly by male homosexual activity but also by hexterosexual means. As a secondary method of spread, contaminated needles used by drug addicts and the transfusion of blood and plasma taken from donors carrying the AIDS agent account for the occurrence of AIDS in intravenous drug abusers, haemophiliacs and recipients of blood transfusion. Haemophiliacs seem at

greatest risk of acquiring AIDS in this way, since the clotting factor which they need (Factor VIII) is prepared from the pooled plasma from many thousands of donations. It is interesting, however, that although the numbers of AIDS cases reported in homosexuals appears to be increasing at a rate of 4-5 new cases daily, the numbers of haemophiliacs with AIDS (10 out of an estimated 12,000 haemophiliacs requiring treatment in the USA) does not seem to have altered over the past several months. The reason for the increased susceptibility to AIDS in Haitian immigrants who are neither homosexual nor drug abusing is not known, although theories abound. There remains a further small group of cases (5% of the total) in whom none of the above risk factors has been identified. To date, there have been no cases of AIDS in laboratory workers handling material from AIDS cases. There is also no evidence to suggest that hepatitis B vaccine (which is made from plasma derived mainly from homosexual donors) carries a risk of transmitting AIDS.

AIDS IN THE UK

In the UK, some 12 confirmed cases of AIDS have been reported to the Communicable Disease Surveillance Centre of the Central Public Health Laboratory, Colindale. Eleven of the twelve were homosexuals and there was a history of drug abuse in four and of contacts with American nationals in seven. Five of these cases have died. The remaining case, a heterosexual haemophiliac received Factor VIII concentrate made from USA plasma prior to 1981. Thereafter he has received only NHS Factor VIII concentrate, made from UK plasma. Although this patient fits many of the criteria for the diagnosis of AIDS, there is still some uncertainty over the diagnosis.

CAUSE OF AIDS

The cause of AIDS is unknown, but the evidence is suggestive that it may be a virus. It also seems likely that some additional predisposing factor - perhaps a pre-existing defect in immunity - may determine an indivual's susceptibility to infection by the AIDS agent. No one virus has emerged as the 'front-runner' for AIDS, but the most promising newcomer to the scene is human T-cell leukaemia virus (HTLV). The problem is to determine whether this virus is present in AIDS sufferers because it causes the disease or because it has invaded after AIDS has destroyed the patient's immune system.

LABORATORY TESTS FOR AIDS

There is no laboratory test which can be used to detect AIDS. The much-quoted alterations in the ratio of lymphocyte sub-sets $(T_A:T_S)$ are non-specific findings which are in no way diagnostic. There is thus no method of screening blood donors in order to reject donations from individuals capable of transmitting AIDS.

STEPS WHICH ARE BEING TAKEN TO PREVENT THE SPREAD OF AIDS IN THE UK

CASE REPORTING

The Communicable Disease SurveillanceCentre has requested, in the medical journals, that all confirmed or suspect cases of AIDS should be reported. A special survey to receive early information on possible AIDS cases has been instituted by the Haemophilia Centre Directors. All UK cases are also being reported to the Centers for Disease Control, Atlanta.

BLOOD DONORS

An information leaflet has been prepared by the Regional Blood Transfusion Directors and will be published by the Department. The leaflet will request homosexual men with many sexual partners, drug addicts and sexual contacts of persons suffering from AIDSO to refrain from donation.

The Directors are currently considering whether to introduce additional questioning for donors in respect of their general health or the presence of certain key symptoms. No questions pertaining to donors' sexual habits will be asked - the Directors are adament on this score.

HAEMOPHILIACS

It is thought that the greatest risk to haemophiliacs at present is from the use of Factor VIII concentrate prepared from American plasma. Although the Blood Products Laboratory is to be redeveloped over the next three years at a cost of £21 million to achieve national self-sufficiency in blood products, until this time, some 50% of the Factor VIII concentrate needed to treat haemophilia will have to be imported, mainly from the USA.

In March of this year, the FDA instituted new regulations governing the selection of plasma donors which were aimed at excluding, as far as possible, donors in high-risk groups. The Department's Medicines and Supply Divisions are endeavouring to ensure that there will be no "dumping" of high-risk plasma products on the UK market and are seeking various assurances from the manufacturers in relation to the quality of their products. It should be noted that certain commercial manufacturers are proposing to introduce heat-treated Factor VIII concentrate. There is no evidence whatsoever that such material reduces the risk of transmitting AIDS.

The Central Blood Laboratory Authority's Central Committee for Research and Development in Blood Transfusion has set up a Working Party to consider research needs in relation to AIDS and the Blood Transfusion Service.

HCMCSEXUALS

A major collaborative research venture has been proposed, to study male homosexual patients attending the Department of Genito-Urinary Medicine at the Middlesex Hospital. This will be a multi-disciplinary study involving the clinical, epidemiological, statistical, virological dimmunological analysis of homosexual patients and appropriate centrols.