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Autoimmune Deficiency Syndrome: Renaming A Scientific Impropriety

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Abstract
In spite of the fact that tremendous strides have been made in understanding the Human immunodeficiency virus (HIV) and the Acquired immunodeficiency syndrome (AIDS) from the molecular level to the broadest perspectives of public health, there has been no serious investigation into the brevity and sanctity of the term AIDS. It is established beyond doubt that there is no AIDS virus; there is only the human immunodeficiency virus, and that, most published research in relation to HIV and AIDS focus exclusively on HIV infection but conveniently lump HIV and AIDS as inter-related and complimentary and also use them interchangeably. This nexus is not corroborated scientifically and does not help in any way to prove that 'AIDS' is an accurately definable medical illness. This paper attempts to question the universal use and application of the acronym AIDS being used as a medical syndrome, provides scientific evidence that the term and its use are technically inappropriate, attempts to technically discredit the term using logical semantics, offers to abandon use of the term Acquired immunodeficiency syndrome (AIDS), and recommends using the term "HIV-related" or "HIV-associated" medical illness in its place.
Keywords: HIV, AIDS, AIDS defining illness, HIV-related/associated illness

1. Introduction

1.1 A historical timeline of 'AIDS'

In 1981, cases of a rare lung infection called Pneumocystis carinii pneumonia (PCP) were found in eight young, previously healthy gay men in Los Angeles (Hymes *et al* 1989). At the same time, there were reports of a group of men in New York and California with an unusually aggressive cancer named Kaposi's Sarcoma (CDC 1981). In December 1981, the first cases of PCP were reported in eleven young men who injected drugs (seven patients), were homosexuals (six patients) or represented both categories (two patients). (Masur et. al 1981). By the end of the year, there were 270 reported cases of severe immune deficiency among gay men, and 121 of them had died (Timeline of AIDS 2016). In June 1982, a group of cases among gay men in Southern California suggested that the cause of the immune deficiency was sexual and the syndrome was initially called 'gay-related immune deficiency' (GRID). Later, the disease was reported in haemophiliacs and Haitians leading many to believe it had originated in Haiti (CDC 1982). It was not long before the name GRID was rendered redundant (Avert 2009). Thus the term Acquired Immunodeficiency Syndrome (AIDS) was formulated. The acronym AIDS was first used on 27 July 1982 at a meeting in Washington, DC for the first time (Kher 2003). In September of 1982, the Center for Disease Control (CDC) used the acronym AIDS, describing it as "a disease at least moderately predictive of a defect in cell-mediated immunity, occurring in a person with no known case for diminished resistance to that disease" (CDC 1982). Such diseases included Kaposi's sarcoma, PCP, and 'other serious opportunistic infections'. These infections included pneumonia, meningitis, or encephalitis due to one or more of the following: aspergillosis, candidiasis, cryptococcosis, cytomegalovirus, norcardiosis, strongyloidosis, toxoplasmosis, zygomycosis, or atypical mycobacteriosis (species other than tuberculosis or lepra); esophagitis due to candidiasis, cytomegalovirus, or herpes simplex virus; progressive multifocal leukoencephalopathy, chronic enterocolitis (more than 4 weeks) due to cryptosporidiosis; or unusually extensive mucocutaneous herpes simplex of more than 5 weeks duration. Between June 1, 1981, and September 15, 1982, CDC received reports of 593 cases of AIDS, out of which death occurred in 243 cases (41%) (CDC 1988). Beginning in 1984, the definition of AIDS was changed to make the Hodgkin's case less anomalous and eventually to include transplant patients and other immunosuppressed individuals under certain circumstances. The CDC revised its definition by adding to the list of diseases diagnostic for AIDS any lymphoma limited to the brain (Selik *et al* 1984). Another revision was made in June 1985. To the previous set of fourteen diseases predictive of cellular immune suppression, the CDC added seven more diseases. If a person was found to be HIV seropositive by any test and had histoplasmosis, disseminated beyond the lungs or lymph nodes; isosporiasis causing chronic diarrhea for more than a month; bronchial or pulmonary candidiasis; many types of non-Hodgkin's lymphomas; Kaposi's sarcoma over the age of sixty; chronic lymphoid interstitial pneumonitis if a child; or any cancer of the lymph system diagnosed three or more months after a diagnosis of any opportunistic infection, then he or she was labeled as an AIDS patient. Thus, a number of groups that had previously been excluded from diagnoses of AIDS, such as certain cancer patients and elderly men with Kaposi's sarcoma, were suddenly potential AIDS patients despite previously demonstrated risks for opportunistic diseases

(CDC 1985). These issues created more confusion in light of the next set of revisions announced by the CDC in August 1987. According to this set of revisions, the list of opportunistic infections indicative of AIDS grew to twenty-four, again enlarging the pool of potential AIDS patients (CDC 1989). By far, the most important of the changes made in 1987 was the statement that "regardless of the presence of other causes of immunodeficiency, in the presence of laboratory evidence for HIV, any disease listed, indicates a diagnosis of AIDS" (CDC 1987).

1.2 Research background

HIV-AIDS is one of the most studied infection/diseases with more than 260,000 papers listed in GOPubMed, and in the early years, HIV was proposed to be the cause of AIDS (Doms 2005). In 1982 public health officials began to use the term "acquired immunodeficiency syndrome", or AIDS, to describe the occurrences of opportunistic infections, including Kaposi's sarcoma, and Pneumocystis jirovecii pneumonia in previously healthy people. Formal tracking (surveillance) of AIDS cases began that year in the United States. In 1983, scientists discovered the virus that was believed to be the cause of AIDS. The virus was at first named HTLV-III/LAV (human T-cell lymphotropic virus-type III/lymphadenopathy-associated virus) by an international scientific committee. This name was later changed to HIV by the CDC. Two features were believed to be at the core of the scientific consensus on HIV-AIDS: the natural history of the HIV infection that included the number of CD4+ cells and HIV RNA copies plotted over the time (Kallings 2008), and the virus replication cycle, from the virus entry to the virus assembly, budding and maturation (Fauci 2003, Barre-Sinoussi *et al* 2013).

HIV-AIDS research is reductionistly-organized and reductionism in science is described as “an approach that tries to explain a form of behavior or an event in terms of a specific category of phenomena, such as biological, psychological, or cultural, negating the possibility of an interrelation of causal phenomena”(Fajardo 2016). The evidence of causality between HIV and AIDS has been shown through different studies. A report, from the US department of Health and Human Services (The evidence that HIV causes AIDS 2009), includes the statements, some of which state that “HIV can be detected in virtually everyone with AIDS”; “AIDS and HIV infection are invariably linked in time, place and population group”; “Many studies agree that only a single factor, HIV, predicts whether a person will develop AIDS”; “Among HIV-infected patients who receive anti-HIV therapy, those whose viral loads are driven to low levels are much less likely to develop AIDS or die than patients who do not respond to therapy. Such an effect would not be seen if HIV did not have a central role in causing AIDS”; and “Nearly everyone with AIDS has antibodies to HIV”; “Newborn infants have no behavioral risk factors for AIDS, yet many children born to HIV-infected mothers have developed AIDS and died”. However, none of these statements are able to define what AIDS really is. All studies base their claims on causality through epidemiological data and a few specific cases of transmission of the virus in 25 out of 56 health workers in one case (O’brien 1996, CDC 1999), and 11 children in another (Van den Berg *et al* 1994), but again fail to define the disease that they refer to as AIDS. What is settled is the fact that patients who were sero-positive for HIV did develop or complicate so-called ‘AIDS defining illnesses’ and showed a high degree of mortality. But that again, fails to elucidate the validity and specificity of the disease with the acronym AIDS.

The World Health Organization’s AIDS case definition is based on the presence of clinical signs associated with immune deficiency and the exclusion of other known causes of immunosuppression, such as cancer or malnutrition (WHO 1994). This is contradictory since ‘AIDS defining illnesses’ that are officially ratified by the WHO continue to include malignant conditions such as Cervical carcinoma, Lymphoma, Kaposi sarcoma etc. According to the WHO's Bangui definition of AIDS (Widy-Wirski *et al* 1988, Fiala 1998) and the "Anonymous AIDS Notification" forms of the South African Department of Health, African AIDS is not a specific clinical disease, but a battery of previously known and thus totally unspecific diseases, such as weight loss over 10%, chronic diarrhea for more than a month, fever for more than one month, persistent cough, generalized pruritic dermatitis, recurrent herpes zoster (shingles), oral and pharyngeal candidiasis, chronic or persistence herpes, cryptococcal meningitis and Kaposi’s sarcoma.

2. Material and Method

A systematic search for articles related to HIV and AIDS was carried out by screening journals listed in SCOPUS, Medline, Social Science Citation Index, and ERIC databases. Journals were selected for inclusion in the study by a combination of formal and informal criteria. Over 100 journal articles were identified and the ones relevant to our study were selected covering a period from 1973 to 2016. Terms including AIDS, HIV, HIV-AIDS, History of AIDS, CDC and WHO recommendation on AIDS were researched to identify full-text articles and communications.

3. Results

Conjuring up a belief system in the name of science by using scientific jargon almost means nothing without concomitant testing, evidence, and corroboration. Researchers should consider the scientific claims being made in their area of practice, become familiar with the evidence for and against these claims, and weigh carefully any

potentially harmful implications of the claims, should they be adopted as practice (Normand 2008). Science is neither a democratic process nor essentially a consensus and there needs to be a distinction between what is conclusive in science versus what isn't.

A syndrome is defined as a "combination of symptoms resulting from a single cause, or so commonly occurring together as to constitute a distinct clinical picture" (Farlex, Free Dictionary). It is also defined as a "collection of signs and symptoms associated with a specific health-related cause" (www.healthwriterhub.com). It is also described as a "combination of medical problems that shows the existence of a particular disease or mental condition" (Cambridge Dictionary). None of these definitions can be used to adequately define the syndrome termed AIDS. Our finding is that the syndrome described as AIDS is vague and its use in medical practice is inappropriate, confusing and unscientific. The fabled chronic medical malady termed AIDS that has been perpetuated in medical academia and the larger international media, is not a specific disease entity per se but is an unscientific application of semantics to amalgamate a wide array of individually known medical conditions that are associated with a detectable HIV antibody titer under one vague and incorrect title. It is the correlation with HIV that is the key factor in this whole issue and using the acronym AIDS as a defining illness is incorrect. Many different known medical conditions classified as "AIDS defining illnesses" by the CDC and the WHO are classified in the presence of detectable HIV viral loads and antibodies against HIV retrovirus and a CD4+ T-cell count below 200 cells/μL, and a CD4+ T-cell percentage of total lymphocytes of less than 14%. This cannot by any stretch of scientific logic be defined as a single entity under the banner of 'AIDS' which essentially means nothing definitive or exclusive. The positive correlation with HIV infection is the key here and the very same conditions outlined under 'AIDS defining illnesses' need to be re-assigned as illnesses in the presence of HIV namely, "HIV-related or associated illnesses" (AIDS defining illnesses 1993). The disease entities should be termed as 'HIV-related or associated' but not caused, since they are not, and can exist by themselves in isolation without any association with HIV, and therefore use of this term should be abandoned. In reality, there is very little distinction between a person being HIV positive and having AIDS, other than the presence of positive symptoms, and for many individuals, the symptoms are severe enough to qualify for benefits even though they don't meet the CDC's definition of AIDS.

The mainstream view that HIV alone is sufficient for immune suppression is not proven and immunosuppression elicited by HIV infection is different from other microbial infections (Elfaki 2012). HIV-1 can be contained by the immune system, as demonstrated by the existence of rare individuals who spontaneously control HIV-1 replication in the absence of antiretroviral therapy. Emerging evidence points to the importance of a very active cellular immune response in mediating HIV-1 control (Chakrabarti, Simon 2010). AIDS patients have numerous other active infections, including cytomegalovirus, herpes simplex, hepatitis, and mycoplasmas, all of which are known to directly infect T- cells and cause immune suppression. While HIV is postulated to be involved in the development of AIDS, it may well be manifest due to co-factors such as a history of poor nutrition, lack of hygiene, intravenous drug use, anal intercourse, as well as various infections and lifestyle diseases. Intravenous drug abuse is the second-highest risk factor associated with AIDS, and has been known to be immunosuppressive since the early 1970s (Brown 1974), and has also been linked for at least two decades to susceptibility to unusual infections and neoplasms, including CMV infection and multifocal, disseminated tuberculosis (Firooznia 1973), both of which are pathognomonic of AIDS in the presence of HIV. Moreover, addiction with heroin and morphine abuse has been demonstrated to cause immunosuppression of T-lymphocytes both by indirect, brain-mediated pathways, and by direct action on the lymphocytes themselves.

For refuting any scientific claim, the moral is that the more extraordinary the claim, the more extraordinarily well-tested the evidence must be. In quantum mechanics, this notion has been formalized as the "Copenhagen interpretation" of quantum action: "a probability function does not prescribe a certain event, but describes a continuum of possible events until a measurement interferes with the isolation of the system and a single event is actualized" (Copenhagen Interpretation of Quantum Mechanics 2014). The Copenhagen interpretation eliminates the one-to-one correlation between theory and reality. The theory in part constructs the reality.

A century ago, German bacteriologist Robert Koch devised a test for proving that a disease is caused by a specific microbe. That test, known as "Koch's postulates," has become a standard in medicine. Koch maintained that for causation to be established, it must be possible to isolate the microbe from an organism that has come down with the disease. The microbe must then be given to a healthy host, where it causes the same disease; then the microbe must be isolated again. It is claimed that HIV fails to prove the postulate while some researchers think recent evidence suggests the virus does pass this test. (REVIEWING THE DATA–II 1994)

4. Discussion

Some of the most intriguing facts in science are those that appear to have answers that are so obvious that no one thinks about questioning them. Physicist and Nobel laureate Werner Heisenberg has concluded, "What we observe is not nature itself but nature exposed to our method of questioning". Reality exists independent of the observer, but our perceptions of reality are influenced by the theories framing our examination of it. Thus, philosophers call

science theory-laden. The present mutual and inseparable bond between HIV and AIDS reflects that very theoretical perception, but not reality. In science, there is an active effort to resist basic paradigm change. The more profound and unconventional a new idea is, the more will there be an ideological resistance against it at source, and it would appear as if there is an "immunity" against new ideas that do not conform to previously accepted ones.

It is seemingly apparent that in light of inconsistencies related to this very lack of application of scientific inquiry, AIDS is most certainly not a clear-cut description of any single disease process, and for that purpose is not even an exceptional syndrome by any extension of logic. There does not even exist a single proper definition of "'AIDS" on which discourse can reliably be based. One difficulty, of which most people are not aware, lies in faulty terminology and different impressions by different people of what "AIDS" means. Thus a morass about HIV and AIDS has been created (Kopieaus 1994). What is however affirmed through scientific “consensus”, is that infection with HIV can be corroborated, and its association with certain conditions does affirm merit. Most people with HIV do not have AIDS. The suggestion that the term AIDS be dropped from the repertoire of medical maladies might be labeled as scientific heresy, though heresy but it is nevertheless, still a matter of grave importance that the acronym ‘AIDS’ be abandoned and all the so-called “AIDS-defining illnesses’ be re-designated as “HIV-related” or “HIV-associated” diseases or illnesses. The use of the acronym ‘AIDS’ is as irrelevant as the term ‘cancer’ used widely instead of the term ‘malignancy’, the term ‘x-rays’ used across the globe instead of the term ‘radiographs’, and ‘hormone replacement therapy (HRT)’ used universally instead of the more appropriate term ‘hormone replenishing therapy’; only that use of the acronym ‘AIDS’ is even worse. Our viewpoint will appear radical and unfounded, but it is of prime importance to use proper scientific terminology when describing medical conditions, and this is foundational as well as valid.

Skeptical analysis of scientific ideas often reveals valuable insight to the pursuit of knowledge. Skepticism does not necessarily imply the absence of validity, but it judges the validity of a claim based on objective or empirical evidence. It is not enough just to have evidence for others to be convinced of the validity of that evidence, and when the provider of that evidence is an ‘outsider’, this is the price that the individual will have to pay, regardless of whether the individual is right or wrong. It is apparent that the fact that two events follow each other in sequence does not mean they are connected causally. Correlation does not necessarily imply causation. Correlations between HIV and AIDS are not sufficient to establish the etiology of AIDS because too many other immunosuppressive agents are also correlated with AIDS, and because no AIDS patient has only HIV as his or her sole risk factor. In science, belief should come from positive evidence in support of a claim, not lack of evidence for or against a claim. Tautology, or fallacy of redundancy, is the conclusion or claim that something is merely a re-statement of one of its premises. The analogy in this context would be that HIV and AIDS are synonymous since HIV and AIDS are used synonymously. It is interesting to note that the UNAIDS Terminology Guidelines forbids the use of the collective acronym HIV-AIDS. It clearly states that “the expression HIV-AIDS should be avoided whenever possible because it can cause confusion” (UNAIDS Terminology Guidelines 2011).

Difficult as it seems, we must try to construct operational definitions that can be tested, falsified, and refuted. Language shapes beliefs and may influence behaviors. These are the foundational principles of science. The dynamic skeptic governs his ideological immune system. The static skeptic is governed by his ideological immune system. The choice is ours: to govern or be governed (Snelson 1992).

"Truly original boundary-breaking ideas are rarely welcomed at first, no matter who proposes them. Protecting the current paradigm, science moves slowly, because it doesn't want to make mistakes. Consequently, genuinely new and important ideas are often subjected to nitpickingly intense scrutiny, if not outright rejection and revulsion, and getting them published becomes a Sisyphean labor. But if the ideas are correct, eventually they will prevail."– Candace B. Pert. (Molecules of Emotion, 1999).

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