JMM

Philadelphia (1993): View of AIDS when it began to be a treatable disease

Lucia Pérez Ochoa López

Facultad de Farmacia. Universidad de Salamanca (Spain) Correspondence: Lucía Pérez Ochoa López. Facultad de Farmacia. Campus Miguel de Unamuno.. 37007. Salamanca (Spain). e-mail: <u>luciastur@hotmail.com</u>

Received 12 July 2005; accepted 1 December 2005

Summary

Andrew is an excellent lawyer who works in an important firm in Philadelphia.. He is gay but in his professional life he has kept this a secret. One evening, in a cinema showing gay pornographic films he has sex with a stranger and gets infected with HIV. When his bosses find out about his illness and his being gay they contrive to "lose" some important documents from his office so that they can justify letting him go. Andrew decides to sue them but no lawyer wants to defend him. Finally, Joe Miller agrees to represent him because he believes that they have a clear case of discrimination. The jury finds in favour of Andrew, whose health has declined along the process.

Keyword: AIDS, HIV, AIDS Clinical Manifestations, Clinical Evolution of HIV, Antiretroviral Therapy.

Technical details

Title: *Philadelphia* Original Title: *Philadelphia* Country: USA Year: 1993 Director: Jonathan Demme Music: Howard Shore Screenwriter: Ron Nyswaner Cast: Tom Hanks, Jason Robards, Denzel

Washington, Roberta Maxwell, Buzz Kilman, Antonio Banderas, Karen Finley, Daniel Chapman, Mark Sorensen, Jeffrey Williamson, Mary Steenburgen, Karen Finley, Ron Vawter, Robert Ridgely, Lisa Summerour, Charles Napier, Joanne Woodward and Roger Corman. **Color:** Color

Runtime: 119 minutos

Genre: Drama (Judicial Melodrama)

Production Company: Clinica Estetico Ltd., TriStar Pictures

Synopsis: Andrew Beckett (Tom Hanks) is an excellent lawyer who works for an important law firm in the city of Philadelphia. He is a homosexual, and although his family and close friends know, he has maintained his sexual orientation as a secret in his professional life. One night, he enters a porno movie theatre and is infected with the human immunodeficiency virus (HIV) by engaging in sex with a stranger. Things go well at his job, because of his excellent professional skills, and he is to be made a partner. But when his bosses become aware of his disease and that he is a homosexual, surprisingly some important documents disappear from his office and they use this as a reason to justify letting him go. Andrew decides to sue for unfair dismissal but no lawyer wants to take his case. Finally, Joe Miller (Denzel Washington), a specialist lawyer in difficult cases, agrees to help him because he believes that it is a clear case of discrimination. All this appears in the media and the process begins to acquire considerable social transcendence. At the end, the jury finds in favour of Andrew, whose health has deteriorated during the legal process.

Awards and nominations: Oscar 1993 to best actor in a Leading Role (Tom Hanks), and Best Song (Bruce Springsteen). Nominated for Best Original Screenplay, Make-up and Song (Neil Young).

A brief review of the disease central to *Philadelphia*: AIDS

AIDS, acquired immune deficiency syndrome, is a disease characterized by the appearance of numerous opportunistic infections and certain tumours as a consequence of the gradual destruction of the immune system elicited by HIV and by neurological manifestations derived from direct action of the virus on the nervous system.

There are two well characterized human immunodeficiency viruses, which are considered independent species: HIV-1 and HIV-2. The internal part of these viruses or nucleocapsid, which contains a single molecule of linear, positive-sense, single-stranded RNA and a reverse transcriptase, is surrounded by an outer coat known as the viral envelope. These viruses belong to the *Retroviridae* family and the genus *Lentivirus*. Both types can be transmitted through sexual intercourse or exposure to infected blood or blood products, and also vertically.

Once the virus penetrates into the host, it binds to the cell surface by means of a specific interaction between its viral envelope and the cytoplasmic cellular membrane. The envelope of the virus and the cell membrane bind together, permitting penetration of the components of the viral nucleocapsid. One enzyme of the virus, reverse transcriptase, generates a double-stranded copy of DNA from the RNA of the viral genome, which becomes integrated into in the genome of the host cell. In the cell, the copy is transcribed into viral mRNA , and is then translated in the cytoplasm to specific proteins of the virus. In this way new virions are formed and released.

The infection evolves in diverse stages that are expressed with diverse clinical manifestations. The virus affects the totality of the immune system and practically all types of cells. The effect of HIV on T-cells elicits an uninterrupted decrease in the subpopulation of CD4 lymphocytes, which are of huge clinical importance, especially as regards the propensity to develop opportunistic and neoplastic illnesses.

After infection by HIV, more than 50% of people develop an acute or primary phase, characterized by the appearance of fever, headache, malaise, adenopathy, myalgia, non-specific macular-papular rash, etc.; the symptoms of a mononucleosis-like syndrome that lasts two to six weeks. After this period infected individuals may remain symptom-free for various years- "the chronic phase",- but even then they can transmit the infection. Their immune systems are gradually debilitated until the full manifestations of AIDS appear. There is a small subgroup of people who develop symptoms very rapidly and there others who never develop any symptoms at all.

AIDS is the final phase of HIV infection, and manifests itself by opportunistic infections, AIDSrelated cancers, neurological manifestations, and signs of deterioration of the immune system. The most frequent opportunistic infections are due to *Pneumocystis* (*Pneumocystis carinii*) *jiroveci* pneumonia, *Mycobacterium avium* diarrhea, *Cryptococcus neoformans* meningitis, toxoplasmosis, herpes simples, herpes zoster, etc. The most frequent neoplastic processes are Kaposi's sarcoma, systemic non-Hodgkin's lymphomas and primary lymphoma of the brain, neurological disease and signs of a weakened immune system.

Patients infected with HIV should receive adequate anti-retroviral treatment as well as the drugs necessary to control the rest of the clinical manifestations that may appear in relation to the infection. Currently, the specific therapy against HIV combines more than one drug, with triple therapy being the most common. Three main groups of antiretrovirals exist: reverse transcriptase, protease, and fusion inhibitors.

Currently, infection by HIV is a chronic medical condition that can be treated but not cured. Existing treatments interfere with the replication of the virus but they do not eradicate it. There are effective ways to prevent the complications of HIV infection and to slow it down, but not to avoid progression towards AIDS. Therefore, treatment must be kept up for life (for further explanation, readers might consult other resources, such as example 1).

Historic moment of AIDS in Philadelphia

In light of how Andrew is treated and the way he lives with the disease it is clear that that *Philadelphia* is set at the end of the 80s and the beginning of the 90s.

In 1990, the AIDS pandemic had extended in such a way that it had progressed from just a few cases described in 1981 in Los Angeles [5 young males, active homosexuals, with infection by *Pneumocystiti carinii* (today, *jirovecii*) and previous infections by cytomegalovirus and mucosal candidiasis²], and in New York [similar clinical manifestations, including Kaposi sarcoma as an associated pathology in homosexual patients³], to 156,000 cases of AIDS in North America; 41,000 in Europe, and 77,000 cases in Africa, according to an official report by the WHO. In other words, there were more than 300,000 cases worldwide⁴.

Knowledge of the illness and the resources available against it were very limited. At the beginning of the 1980's, the first scientific report about the disease appeared in the New England Journal of Medicine5. The infection and the disease itself were defined with better precision between 1982-1985, thanks to the discovery of the aetiological agent of the disease: HIV. The conclusion of the study of the risk groups for AIDS that were detected was that the main ways of transmission of HIV infection were sexual and through the blood exchange. The pandemic was described as "urban," since most cases appeared in the large cities. in 1989 there was only one antiretroviral medication available: zidovudine or AZT, a transcriptase inhibitor introduced in 1987. Until 1991, no other drug active against HIV was introduced, until didanosine appeared. In 1992, the FDA started an accelerated process of approving anti-retroviral drugs with a view to improving the availability of new molecules for the fight against AIDS. In 1992 zalcitabine became available; in 1994 stavudine, and in 1995 lamivudine, followed in ensuing years by other antiretrovirals and combinations in the same dosage form.

The risk groups initially considered were homosexuals, heroin addicts (intravenous drug users), Haitians and haemophiliacs: the disease of the four Hs. Later, at the end of the 80s, the receivers of transfusions, the children of drug-addicted mothers, the sexual companions of seropositive individuals and heterosexuals were also included.

The ignorance of the population about the disease and the fear of infection produced severe social tensions, above all for the groups at risk. In the US, in 1990 the government of George Bush senior established laws that excluded the entry of HIV - infected persons into the country. Some of these people denounced the US government for discrimination. The restrictive rules that the US imposed against individuals infected with HIV and AIDS resulted in the International AIDS Conference being moved from Boston to Amsterdam.

The appearance of cases related to famous people focused attention on the disease at the beginning of the 1990s, propitiating social awareness, and the appearance of cases in the heterosexual population created the perception that everyone was threatened by AIDS⁶⁻⁸. In the 80s and the beginning of the 90s, the very word AIDS was synonymous with death; it was widely believed that infected individuals would not survive for more than 18 months.

Aspects of AIDS reflected in Philadelphia

The film focuses on two of the risk groups, homosexuals and the receptors of blood transfusions. The first of these groups is represented by the protagonist Andrew, who encounters, during the trial, names of AIDS such as the "gay plague" or the "gay cancer", common terms that designated HIV infection in those times. The general population associated the disease with the male homosexual population and its promiscuity, given that most people affected belonged to this social group.

Regarding receivers of blood transfusions, one of the witnesses in the trial, an employee of a law firm in another city, was also infected with HIV and had developed AIDS. This witness contracted the disease after delivery when she and lost a lot of blood and needed transfusions, resulting in her becoming infected (figure 1).



Figure 1: The witness who acquired VIH infection through a transfusion

The way that the main protagonist of the film contracts the AIDS is through sexual contact when he had relations with a stranger in a porn theatre in 1984 or 1985. He was a good guy and had only engaged in that type of activity once! During the trial, he declares that when he was infected he did not know how the disease was contracted or that it was fatal.

Concerning the evolution of his disease, after infection Andrew appears to remain asymptomatic for



Figure 2: Analytical tests

a few years, and the movie begins just at the moment when he already knows that he is infected and is carrying out periodic checkups on his immunologic status (T lymphocyte, platelet counts, etc.). The disease continues its course until Andrew develops Acquired Immunodeficiency Syndrome (AIDS), which manifests along the action in the form of opportunistic infections and neoplastic pathologies. His analyses underscore the value of CD4 cell counts (figure 2).

In the movie, the first visible clinical manifestations of the disease, in addition to the febrile episodes, are a few spots that appear on his face (figure 3). These erythematous or violaceous plaques correspond to the skin affectation: Kaposi's sarcoma (stage I). It is a rare neoplastic condition, whose epidemic variant affect AIDS patients, related to *Herpesvirus* 8 (HVH 8). As the action progresses, we see how the isolated skin legions become more aggressive and generalized. There is a possible reference to a visceral form (stage IV); lesions of the gastrointestinal track that induce a bout of severe diarrhoea in Andrew, requiring hospital attention (figure 4). The doctor who attends to him decides to perform a colonoscopy to test if the diarrhoea is due to Kaposi's sarcoma or other pathologies.

A few months after Andrew's dismissal, he has lost weight, appears pale, fatigued and has gener-



Figure 3: First manifestation of AIDS in Andrew: Kaposi's sarcoma



Figure 4: Digestive manifestations of AIDS

alised malaise. Along the trial we see how his physical status gradually deteriorates: continuing weight loss, weakness, muscle pain, lipodystrophy, giddiness and hair whitening (figure 5).

Due to his immunodepression he is susceptible to many types of opportunistic infections. We also see that in the final stages of his disease, his respiratory and digestive systems are affected. He has difficulty breathing and speaking, probably due to pneumonia and the appearance of lesions in his bucopharyngeal cavity and oesophagus. His nervous system is also affected; he feels faint when testifying and the judge almost postpones his testimony. Later, Andrew faints in the tribunal room and has to be hospitalized, requiring reanimation and oxygen. He eventually loses sight in his right eye due to an infection by cytomegalovirus.



Figure 5. Progressive deterioration

The trial must be finished without Andrew, who must remain hospitalized and dies after having won the case.

Andrew receives blood transfusions and several different drugs for the treatment of AIDS, the first of which appear to slightly alleviate his debility. He receives zidovudine on monotherapy as an antiretroviral, reflecting the historical time in which the action occurs. At a certain moment, fairly late into the movie, the drugs are being administered intravenously by Andrew's partner, Miguel (Antonio Banderas), and in one scene we see how the drip doesn't work and how Andrew refuses to receive the treatment at that moment. To treat his opportunistic infections, acyclovir, gancyclovir and ketoconazole (Nizoril) are prescribed. To stimulate her appetite, vitamins and megestrol acetate (Megase) are given.

Given its complexity, the treatment is depicted on a board for the purpose in his apartment. As we learn from that board, AZT is the drug that must be taken with the highest frequency (figure 6).



Figure 6: Andrew's treatment schedule

Andrew knows that he is going to die and that his treatment will only prolong his life for a short while. We see this in the above scene where decides to skip one of his administrations.

AIDS elicits important changes in Andrew's social environment. With respect to his professional life, at the beginning of the story he has excellent relations with his co-workers, both his professional colleagues and secretaries and bosses, who appreciate him as a professional, value his work, and who are on the point of making him partner in the law firm. However, this relationship changes when they find out that he suffers from AIDS and is a homosexual, issues that Andrew has kept secret. To conceal the disease, he even wears make-up and misses work, doing everything possible so that the others won't notice (figure 7). But his bosses dismiss him, repulsed by homosexuals (with the exception of one of the bosses, who along the film, we might suspect, could have AIDS himself) and terrified by the disease. They have had contact with him, even a certain intimacy, every day and probably fear they could have become infected themselves. They believe that Andrew must have contracted the illness by engaging in rash, torrid, and morally reprehensible sexual conduct. To hide this dis-



Figure 7: Hiding the disease

criminatory attitude, they sabotage his work by "disappearing" an important document and go on to qualify his performance in the firm as mediocre. Nevertheless, the central core of the drama is certainly the negative attitude towards homosexuals.

Andrew's co-workers display different attitudes. Some of them support him, testifying in his favour at the trial. They state that his dismissal was discriminatory, because his bosses, even though they deny this and base their claims on low performance, knew very well that he had AIDS and even confessed that Andrew was a good boss and always conducted himself professionally.

An employee of the firm, sick with AIDS due to a transfusion, declares that she does not feel that Andrew is any different because he contracted the illness through another route. She was not dismissed by the bosses of the firm because in her case they considered that she was not guilty for having the disease while Andrew was, because he was a homosexual. A client of the lawyer's office that had classified Andrew's work as excellent then declares, to support his dismissal, that the work was simply satisfactory and that his performance was not what they had expected.

Joe -the lawyer who finally takes Andrew's case- does not accept the lawsuit at first, in spite of knowing Andrew and having worked with him on several cases. His motives are clear; he is prejudiced towards homosexuals and is unfamiliar with the disease and fears being infected with HIV. When Andrew goes to office and finds out that he has AIDS, Joe goes to the doctor to make sure that he had not been infected by simply touching Andrew. He calms down when he is told about the ways the disease is transmitted, when his doctor explains that it can only be contracted through the exchange of body fluids (figure 8). Even after having accepted the case, and believing an injustice has been committed, he continues to maintain an attitude of revulsion towards homosexuals. As the trial progresses, he begins to get to know Andrew and his environment, family, partner, friends, and the treatment that he receives better. In parallel, Joe's way of seeing his client and homosexuals changes little by little, and he finally sees them the same as the rest of the population. The more he finds out about HIV infection and of homosexuals, the greater his acceptance of infected individuals and the homosexual collective. And all this despite the fact that at the start of the film, in a shop, a homosexual propositions him because he cannot understand that if Joe is defending Andrew he doesn't necessarily have to be gay.



Figure 8: Joe is frightened of having contracted the disease from Andrew and sees his doctor.

Regarding his family, partner, and friends, Andrew has always been sincere and they all know that he is infected with HIV. They have a better knowledge of the disease than the general population. All of them love Andrew and support him. His family accepts his illness and his homosexuality. His parents are proud of who he is and encourage him to fight for his rights. They all worry for him and treat him as they always have, without fearing to contract the disease from him. The moment that best reflects this attitude is when he takes of his nieces in his arms and bottlefeeds her (figure 9).



Figure 9: Andrew is completely accepted by his family

Andrew's partner, Miguel, takes care of him unceasingly as the disease evolves; he follows the evolution of the disease and is zealous in the treatment. In spite of remaining at Andrew's side, he does not contract the disease.

Andrew's friends help him to hide his illness and to take care of himself. Most of them are homosexuals themselves and see HIV infection as something just around the corner that could get to them at any moment.

The attitude of Andrew towards AIDS patients at the beginning of the movie is anything but positive. When he goes to see the doctor, he does not care about any one else and blocks his surroundings out with his work and his music (figure 10). This attitude, however, appears to change. In fact, one very emaciated patient with whom he coincides in the waiting room of a hospital and with whom he has never exchanged a single word goes to his funeral and survives him. These two cases are examples of the different ways that the AIDS evolves.



Figure 10: Isolating himself from his surroundings

Throughout the movie, the excellent trust and confidence that Andrew and Miguel have in his own doctor is portrayed, although this is not the case with other doctors who treat him sporadically.

The film also shows how certain strangers react differently to Andrew Becket's illness. There are several scenes that reflect this situation, such as the one of a woman in the Hospital waiting room, the scene of the library users and librarian and, obviously, the health staff who attend to Andrew. All of these people, with the exception of the health personnel, react in the same way, with an expression of fear and panic on their faces, reflecting their fear of the disease. They do all they can to get away from him or isolate from others, "as though he were infected with the plague" (figure 11).



Figure 11: Discriminación

In the movie, we see how the Andrew's denouncement of his superiors has repercussions at the social level that go beyond the issue of an unfair dismissal; rather it is an act of protest against the treatment that HIV-infected individuals and homosexuals receive from others simply for having their "condition". Thus, during the trial we see ardent protests both in favour of and against both social groups (figure 12). The prejudices of the general population impose themselves on HIV/AIDS-infected persons: a social death that precedes real, physical death, inevitable in those times.



Figure 12: Social reaction

The general population associated the disease with the homosexual collective and its promiscuity, most individuals affected belonged to this group. The general homophobia prevalent in society, contributed to the "demonization" of AIDS and the despising of HIV-infected individuals.

Conclusions

In addition to the cinematographic quality in the film, whose director already had surprised the world with *The Silence of the Lambs* (1991), and quality of acting -Tom Hanks plays the role of Andrew Beckett impeccably- the realism and the predicament of the social and personal situations of HIV-infected persons portrayed at a specific moment in time, not so distant from our own, are astounding.

In the movie, we clearly see the scruples against and rejection of the general population towards people infected with HIV, especially towards infected homosexuals. The film brilliantly reflects the little sympathy that homosexuals enjoyed on behalf of most of society at that time, and the fact that HIV spread faster and more evidently among them contributed to further marginalising the two collectives.

If in *And the Band Played On (1993)* by Roger Spottiswoode the cinematographic industry portrayed the story of the start of the AIDS pandemic, *Philadelphia* reflects its evolution as of when AZT began to be used, a reality very distant from the current experience of many in the first world. At different times, the movie classifies the disease as a "terrible infectious and fatal disease" and "a debilitating illness" and "an incurable disease." The lawyer who defends the firm tells the judge that "Andrew is dying." This form of AIDS evolution has also been the story in developed countries, and in this sense, the film is of clear educational value.

The evolution of the disease and its treatment correspond quite faithfully to the reality of AIDS at that moment. Likewise, the positing of the risk groups and the diffusion of the epidemic correspond in importance with the groups of major prevalence in those times.

One aspect that draws our attention is the attitude of the family, friends, and the health personnel towards the infected individual. Given their composure in treating the patients, these people appear to have considerable knowledge about infection by HIV, in spite of the scarce information available for the general population in comparison with today's situation.

The only available and totally efficient weapons against HIV/AIDS are prevention and health education and this movie has certainly contributed to clarifying doubts and extending some of this knowledge to the population at large. Its success and diffusion have served to inform the population and improve their social perception about AIDS and those who are ill with it.

References

1.- Gatell, JM., Clotet, B., Mallolas, J., Miró, JM., Podzamczer, D. Guía práctica del SIDA. Clínica, diagnóstico y tratamiento. 8th ed. Barcelona: Masson. 2005.

Lucía Pérez Ochoa López

2.- Centers for Disease Control 'Pneumocystis Pneumonia- Los Angeles. MMWR Morb Mortal Wkly Rep. 1981; 30: 250-252.

3.- Centers for Disease Control Kaposi's sarcoma and Pneumocystis pneumonia among homosexual men—New York City and California. MMWR Morb Mortal Wkly Rep. 1981; 30: 305-308.

4.- Chin, J. Global estimates of AIDS and HIV infections: 1990. AIDS. 1990; 4 Suppl 1: S277- S283.

5.- Gottlieb M.S., Schroff R., Schanker H.M., et al. Pneumocystis carinii pneumonia and mucosal candidiasis in previously healthy homosexual men: evidence of a new acquired cellular immunodeficiency. New Engl J Med. 1981; 305:1425-1431.

6.- Office of NIH History [database on the Internet]. Bethesda: In Their Own Words NIH researchers recall the early years of AIDS [updated 2005 Apr 6; cited 2005 Jul 9]. [about 8 screens]. Available from: <u>http://0-histo-ry.nih.gov.portia.nesl.edu/NIHInOwnWords/docs/page_26.html</u>

7.- Avert.org [database on the Internet]. HIV/AIDS history and pictures [updated 2005 Nov 24; cited 2005 Jul 9]. The history of AIDS from 1987 to 1992; [about 10 screens]. Available from: <u>http://www.avert.org/his87_92.htm</u>

8.- Avert.org [database on the Internet]. HIV/AIDS history and pictures [updated 2005 Aug 5; cited 2005 Jul 9]. The history of AIDS from 1993 to 1997; [about 10 screens]. Available from: <u>http://www.avert.org/his93_97.htm</u>

Acknowledgment:

International Studies Abroad (I.S.A.).

http://www.studiesabroad.com/programs/country/spain/city/salamanca

Translated by:

C. William Carspecken (ccarspec@du.edu)

