

## Racial variation and cancer: a historical approach

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### Summary

At the end of the 19<sup>th</sup> century, in an attempt to define cancer's etiology, scientists considered that cancer was mainly affecting the white race and the temperate zone

countries. In their turn, epidemiological studies held in the early 20<sup>th</sup> century sustained the dogma of cancer's racial distribution, targeting and stigmatizing ethnic groups.

**Key words:** cancer, ethnic groups, history of oncology, racism

### Introduction

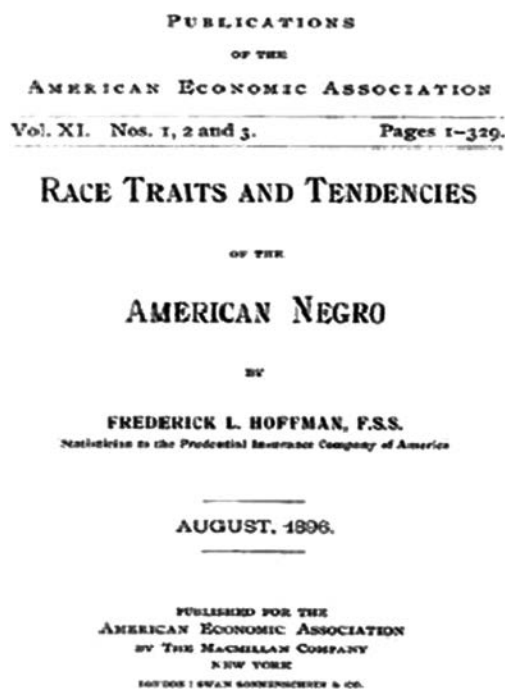
At the beginning of the 20<sup>th</sup> century, most researchers considered that cancer was the "sad privilege" of the white race and of temperate zone countries [1]. This idea, stated years earlier by the Scottish physician David Livingstone (1813-1873) and several other medical authors, dominated cancer's etiology for nearly a century [2].

The anticancer immunity, much enjoyed by the black race, was the main subject of the work of the French anthropologist and professor of medical geography Arthur Bordier (1841-1910): "From this table, we may assume what it means negros' immunity from cancer. In Senegal, Girard and Huard say that they have never known cancer in the black race. Dr. Chassaniol only saw one case, a cancer of the breast, in a negress. The only case ever reported by Dr. Landry of Montreal was that of a mulatto woman who had probably inherited the aptitude from her white father" [3].

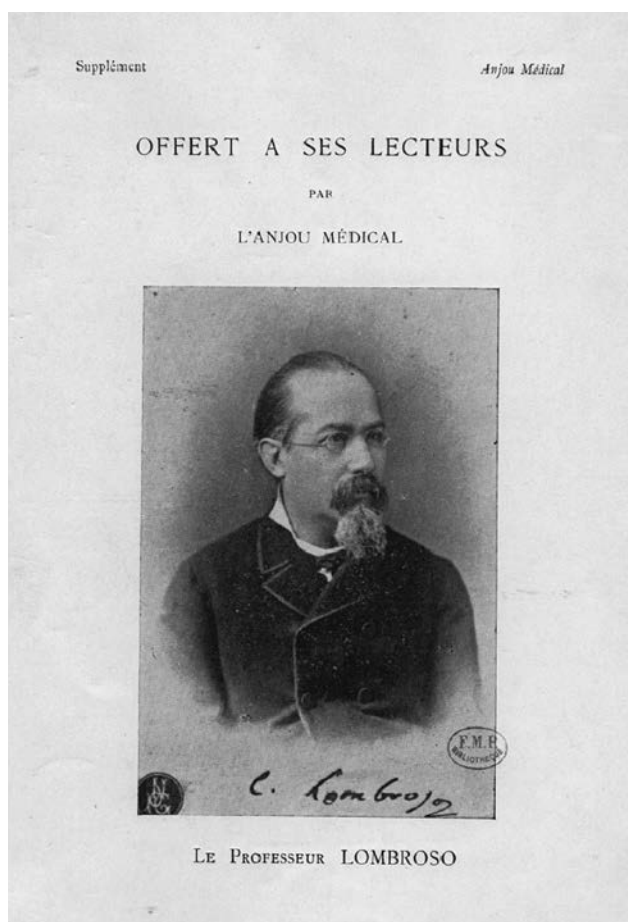
In 1896, the pioneer of medical statistics and public health issue expert, Frederick L. Hoffman (1865-1946), in his biased for racism work "Race traits and tendencies of the American Negro",

mentioned that at all ages blacks had a lower life expectancy than whites [4] (Figure 1). Cancer trends reflected the struggle for the survival of the fittest, the battle between blacks and whites. Hoffman concluded that disease and poverty were linked to racial inferiority, thus influencing the insurance industry which for decades refused to sell life insurance policies to blacks. In 1915 in his book entitled "The Mortality from Cancer throughout World" Hoffmann stated that cancer was a "white" disease and that blacks were immune to diseases such as cancer, appearing in high levels of civilization [5].

Furthermore, in 1907, Dr. Cayetano Sobre-Casas, physician at the Rawson Hospital in Buenos-Aires, noted that as Africans are immune to cancer and yellow race such as Chaco and other Indians of South America have the same privilege [6]. An opinion confirmed by Hoffman in his epidemiological study concerned cancer in Bolivia [5]. In 1920, the report of 107 physicians in South America revealed that in 115,000 studied Indians only 29 presented cancer, whereas the rates of



**Figure 1.** Frontispiece of Hoffman's biased work "Race traits and tendencies of the American Negro", 1896.



**Figure 2.** The Italian physician and criminologist Cesare Lombroso (1835-1909).

cancer in whites living in those areas incomparably increased [7].

However, this fabulous immunity, enjoyed by races of colour, changed when they came in contact with the white race. In 1884 Dr. Bordier suggested: "If Black Africans are unaware of cancer, it is not the same for African Americans, although they are affected less than whites. Thus in about 1,000 cancer deaths recorded among whites, it counts only 634 in blacks" [3]. During that period researchers were trying to prove that the white race not only passed along on syphilis and tuberculosis in blacks, but cancer, as well. More significant is the case of the Basotho ethnic group in South Africa. In an article published in 1924, Dr. Bunch indicated that cancer was spread by "collective contamination" rather than contagion and he cited as example the experience of the physician Casalis de Pury and his father, who practiced among the natives of South Africa [8]. After observing the Basotho people for almost twenty years, they did not find any case of cancer. However when Basothos were hired as workers in the Kimberley Mine, some of them presented with cancer [8]. In 1925, Doctor Louis Bauguion in his thesis entitled "Les maisons à cancer" (Houses in cancer) sustained that primitive races were free of cancer; and since civilization had penetrated their houses, they began to be affected by the disease [7].

Curious were the cancer rates in Jews. In 1860s in Italy, the famous criminologist Cesare Lombroso (1835-1909) studied the mortality of the Jews of Verona in the context of the death rate of the non-Jewish population (Figure 2). While the mortality from cancer among the general population was only 2% of the total mortality, the cancer mortality of the Italian Jews was 3.3% [9]. The reversal of Lombroso's study appeared in a statistical analysis published in 1902 in the *British Medical Journal*, entitled "Cancer among Jews". The analysis was based on data obtained from the Burial Society of the Unites Synagogue; the mortality rates of the Jews living in London between 1898-1900 were 52.5 per 100,000 in comparison to 94 among non-Jews [10].

Soon afterwards, in 1908, Ernest F. Bashford (1873-1923), an English physician and the first director of the Imperial Cancer Research Fund, argued the dogma of cancer's ethnic immunity believing that it was the result of inadequate statistics. During that period scientific missions charged to study cancer and its geographical distribution demonstrated cancer mortality similar

to that of the European countries in the highlands of the Himalayas, Kashmir, New Guinea or even in the Pacific islands [11]. Bashford concluded that cancer is not a race disease stating that the: “increased number of deaths recorded from cancer, its apparent greater frequency in some geographical areas than others, the presumable importance of race, diet, soil, climate, are all problems of less importance”[11]. This immunity was derived more often from the low life expectancy of the so-called “primitive” peoples and the lack of medical facilities and statistics was interpreted as a sign of degeneration of the white race living in urban areas.

However over the first half of the 20<sup>th</sup> century, scientists continued to racialize cancer and their views become a part of eugenics, targeting and stigmatizing subjects as potential threats to the health of the nation [1].

Currently, published statistics on cancer incidence and death in ethnic variations demonstrate that white women and black men have the highest incidence rates of cancer while black men and black women have the highest death rates from cancer, thus proving that cancer is not just a racial disease, but a complex disease that also involves inadequate screening and health care services [12].

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