

Micróbios causam o câncer de mama ? – Nuzum em 1925 encontrou Micrococcus em 38 pacientes com câncer de mama das 42 examinadas - CWD – L- formas

Do Killer Microbes Cause Breast Cancer?

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Despite a century of cancer research the cause of breast cancer remains unknown. Age, [diet](#), stress, hormone factors, genetic predisposition, and cancer viruses are all suspected as possible causative factors, but totally ignored are infectious bacteria which have been implicated in breast cancer and other forms of cancer.

A century ago when major diseases like tuberculosis, leprosy, and syphilis were discovered to be bacterial (not viral) infections, many physicians suspected bacteria might also cause cancer. At the close of the nineteenth century (when the science of microbiology was in its infancy), many different microbes were cultured from cancer. Various called "cancer coccidia," "sporozoons" and "cancer parasites," a few of these microbes produced cancer tumours when injected into animals. But many did not, and most doctors finally assessed these cancer germs as laboratory "contaminants" or as "secondary invader microbes" that infect the tissue after the cancer is already formed.

The idea of a cancer parasite was finally dismissed in 1919 by noted American pathologist James Ewing. In his popular textbook, *Neoplastic Diseases*, he declared: "Few competent observers consider it (the parasitic theory) as a possible explanation in cancer." In Ewing's opinion, cancer did not act like an infection. Therefore, he concluded that microbes couldn't possibly cause it. He wrote: "The general facts of the genesis of tumours are strongly against the possibility of a parasitic origin."¹ Subsequently, few doctors dared to contradict Ewing by investigating bacteria in cancer.

Nevertheless, during the 1920s a few persistent physicians like pathologist John Nuzum of the University of Illinois College of Medicine; surgeon Michael Scott from Butte, Montana; and obstetrician James Young of Edinburgh, Scotland, continued to publish research showing that bacteria were implicated in breast cancer and other forms of cancer.

Working independently of one another, all three researchers cultured unusual bacteria from breast cancer, as well as from breast cancer tumours in mice. The peculiar growth of the "pleomorphic" cancer germ defied the established laws of microbiology by its ability to change shape and form, depending on how it was cultured in the laboratory, as well as the amount of oxygen supplied for growth and the age of the culture.

At first, the germ was barely visible as tiny round coccal forms. Later, these cocci enlarged into rod-shaped bacteria, which could connect together to form chains resembling a fungus. Small cocci could also enlarge into larger yeast and fungal-like spore forms.

Nuzum grew his "micrococcus" from 38 of 41 early breast cancers, and from the cancerous lymph nodes and metastatic tumours resulting from spread of the cancer to other parts of the body.^{2,3} During his 6 years of intensive bacteriological study, he learned the microbe could pass through a filter designed to hold back bacteria, indicating that some forms of the microbe were as small as the size of some viruses. With special stains he detected these small round coccoid forms within the breast cancer tumour cells. Although Nuzum couldn't produce cancer tumours in mice, he was able to induce breast cancer tumours in 2 of 5 dogs injected with the microbe.

In a dangerous human experiment he injected the groin of a 70-year-old man with the bacteria he cultured from breast cancer. After 62 injections over an 18-week period, a skin cancer formed in the man's groin. This experiment showed that breast cancer microbes were also capable of producing a different kind of cancer, such as skin cancer.³

Young found his microbe in 16 cases of breast cancer, and in two mice with breast cancer. He identified "spore forms" and clumped "spore balls" in microscopic sections prepared from the mouse tumours.^{4,5}

Scott described three stages in the life cycle of his parasite: rod forms, spore or coccus-like forms, and large spore-sacs resembling a fungus.^{6,7} He treated cancer patients with an effective antiserum against these microbes, and spent the rest of his life trying to alert his colleagues to the infectious cause of cancer. But the antagonism of the medical profession to Scott's cancer parasites and his antiserum was overwhelming, and he died a forgotten man.

During the last half of this century cancer microbe research was barely kept alive by a quartet of women, now all dead. The published research of Virginia Wuerthele-Caspe Livingston-Wheeler (a physician), Eleanor Alexander-Jackson (a microbiologist), Irene Diller (a cellular biologist) and Florence Seibert (a chemist) provides indisputable evidence that bacteria are implicated in cancer.

Livingston, who never let the male-dominated medical profession intimidate her, independently discovered the cancer microbe in the late 1940s and never stopped talking about it until her death in 1990, at the age of 84. Aided by Alexander-Jackson, who supplied the bacteriologic expertise, they became an unstoppable research team.⁸⁻¹² The two women found a special stain (the acid-fast stain) that allowed the microbe to be recognised in culture and within the cancer tumour. Like the researchers back in the 1920s, they confirmed the microbe was filterable; and electron microscopic photos provided further proof that the filterable forms were indeed viral-size. Livingston named the microbe "Progenitor cryptocides" (Greek for the hidden-killer), which angered cancer experts, microbiologists, and American Cancer Society spokespersons, all of whom insisted the cancer microbe did not exist!

In the 1950s Irene Diller of the Institute for Cancer Research at Fox Chase, Philadelphia, discovered fungus-like microbes in cancer cells. Joining forces with the Livingston team, Diller worked with specially bred mice with a proven cancer incidence. By injecting them with microbes cultured from breast cancer and other tumours, she was able to more than double the cancer incidence of the mice.¹³

She injected healthy animals with cancer bacteria. When cancer tumours developed she successfully cultured the microbe from the tumours - thus proving that these bacteria were implicated in the production of cancer. Utilising Livingston's methods, Diller also grew the microbe from the blood of cancer patients.

In the early 1960s Florence Seibert became so impressed with Diller's research that she quit retirement to help prove that bacteria cause cancer. Back in the 1920s Seibert devised a method to make intravenous transfusions safe by eliminating contaminating ubiquitous bacteria. Later, as one of the foremost authorities investigating the chemistry and immunology of the acid-fast bacteria that cause tuberculosis, she perfected the skin test for tuberculosis that has been used worldwide ever since. In 1938, she was awarded the famed Trudeau Medal, the highest prize

given to tuberculosis research.

Experiments conducted by Seibert and her research team showed these acid-fast and TB-like cancer microbes were not laboratory contaminants because they were able to isolate bacteria from every piece of tumour (and every acute leukemic blood) they studied.¹⁴

In her autobiography, *Pebbles on the Hill of a Scientist*, published privately in 1968, she wrote: "One of the most interesting properties of these bacteria is their great pleomorphism. For example, they readily change their shape from round cocci, to elongated rods, and even to thread-like filaments depending upon what medium they grow on and how long they grow. This may be one of the reasons why they have been overlooked or considered to be heterogenous contaminants... And even more interesting than this is the fact that these bacteria have a filterable form in their life cycle; that is, that they can become so small that they pass through bacterial filters which hold back bacteria. This is what viruses do, and is one of the main criteria of a virus, separating them from bacteria. But the viruses also will not live on artificial media like these bacteria do. They need body tissue to grow on. Our filterable form, however, can be recovered again on ordinary artificial bacterial media and will grow on these. This should interest the virus workers very much and should cause them to ask themselves how many of the viruses may not be filterable forms of our bacteria."

Seibert's provocative papers, some emanating from the prestigious *Annals of the New York Academy of Sciences*, should have caused a stir. But with the quartet slowly closing in on the infectious cause of cancer, funds from previous supporters (like the American Cancer Society) suddenly dried up. All cancer microbe researchers eventually discovered that studying cancer bacteria was the kiss of death as far as funding was concerned. And without adequate funding, this type of cancer research was made more difficult.

But coming from thirty years of research into the acid-fast bacteria that cause tuberculosis, Seibert knew that the discovery of a pleomorphic and acid-fast microbe in cancer was tremendously important. She fervently believed that knowledge of this microbe would be instrumental in developing a possible vaccine and more effective antibiotic therapy against cancer. In *Pebbles* she confided: "It is very difficult to understand the lack of interest, instead of great enthusiasm, that should follow such results, a lack of certainty not in the tradition of good science. The contrast between the progress made in tuberculosis where we know the cause, where we have good general diagnostic tests, where we have a vaccine and effective antibiotic controls, and that made in cancer with the millions invested, is very striking. Some dedicated scientists should indeed find it rewarding to confirm or deny these painstaking and time-consuming experiments, for the sake of establishing the first necessary step in the important problem of the etiology of cancer."

Like the other women, Seibert observed the virus-like forms of the cancer microbe within the nucleus of the cancer cells. She theorised this infection could disrupt and transform nuclear genetic material that could lead to malignant change. Even though cancer microbes might appear to be simple and common microbes, their ability to infiltrate the nucleus of cells meant they were far from harmless.

In 1990, at the age of 92, Florence Seibert was inducted into the National Women's Hall of Fame, along with Barbara Jordan (Government), Billie Jean King (Athletics) and Margaret Bourke-White (Arts). When she died the following year her passage was noted in *Time* and *People* magazines, and in major newspapers like *The Los Angeles Times*. All the obituaries mentioned her contributions to the safety of intravenous fluids and her great achievement with the TB skin test. But not a word was written about her cancer microbe research, to which she devoted the last thirty years of her life.

Each year 190,000 American women are diagnosed with breast cancer. And the prognosis is still dismal for women whose breast cancer has spread to the lymph nodes and beyond. Yet the medical establishment remains adamantly and irrationally opposed to cancer microbe research. It is perhaps understandable from an economic viewpoint that the medical profession would not

welcome a proposed infectious cause of cancer that would challenge the highly lucrative multibillion-dollar cancer industry.

Physicians confidently ignore cancer bacteria because they have been carefully taught in medical school that there are no significant bacteria detectable in cancer. They still believe that cancer microbes represent contaminant bacteria or bacteria of no significance. Thus, published reports of cancer microbe research are rarely cited and the subject remains virtually unknown.

The idea of a microbe with virus, bacteria, and fungal-like stages is also anathema to most doctors. However, over the past several decades the study of cell-wall deficient bacteria and "mycoplasma-like" bacteria (which are both bacterial and viral-like) indicates that microbes indeed have a complex life cycle. In 1919, when Ewing offered his damning opinion of cancer parasites, none of these microbiologic peculiarities were even recognised!

In some instances, cancer microbe research appears to be deliberately suppressed. For example, the National Cancer Institute on its "cancer Facts" web page (<http://oncolink.upenn.edu/pdg/600911.html>) informs viewers about Virginia Livingston and states: "There is no scientific evidence to confirm her theories of cancer causation or to justify her treatments." Obviously, this official judgement is a blatant lie because, as we have noted, Livingston's discoveries have been confirmed by many competent scientists.

In addition, Livingston has written three books on the cancer microbe: *Cancer: A New Breakthrough* (1972), *The Microbiology of Cancer* (1977), and *The Conquest of Cancer* (1984).¹⁵⁻¹⁷ More recent books on bacteria in cancer include Alan Cantwell's *The Cancer Microbe* (1990) and *Can Bacteria Cause Cancer?* (1997) by David J Hess.^{18,19}

Using acid-fast staining techniques, bacteria have been identified in breast cancer, lymphoma, Kaposi's sarcoma (the so-called "gay cancer" of AIDS) and other forms of cancer.²⁰⁻²² Figure 1 shows bacteria identified in breast cancer, indicating that such microbes are already present within the tumour and are not laboratory contaminants. Microbes have also been identified in "normal" and cancer-free breast tissue removed at the time of surgery. This suggests that the bacteria are not "secondary invaders" because they are identifiable in areas before the tissue has been invaded by cancer.²⁰ Figure 2 shows the appearance of a microbe cultured from the same breast cancer. Note how the size and shape and appearance of the microbes within the tumour (Fig. 1) approximates the appearance of the bacteria cultured from the metastatic spread of the tumour to the skin (Fig. 2).

The current lack of knowledge about the cause of advanced breast cancer has resulted in the recommendation of some very expensive and death-defying treatments for this horrendous disease. Bone marrow transplants, which carry a 5% death rate, are being proposed as a routine treatment, at a minimal cost of \$100,000 per patient.

As described in Karen Stabiner's *To Dance With the Devil: The New War on Breast Cancer* (1997), the procedure is not pretty.²³ First, a catheter is placed in a woman's chest to deliver the drugs. A surgical treatment is then performed to scrape out bone marrow from her pelvis, followed by 7 days of growth hormone injections. Then starts days of intravenous chemotherapy that can cause kidney and bladder damage. A catheter is placed in the bladder, followed by a round of intravenous BCNU, or carmustine, a drug that makes a woman feel like she is falling down drunk. Patients become sleepy, sullen, disoriented, agitated, and angry. Loss of bowel control and vomiting are common. After all this, women are put into isolation because the white count drops precipitously, making her vulnerable to all sorts of infections. There may be inexplicable spiking fevers and rashes, and the inevitable loss of hair. After three weeks, patients are allowed to go home where they are told to watch for, "interstitial pneumonitis," a potentially fatal after-effect if not diagnosed and treated early.

Bone marrow transplant for breast cancer is not guaranteed, nor is it considered a cure. Women have been known to die of cancer three months after the procedure, proving that some patients

do not respond to chemotherapy no matter how high the dose.

Even with radiation, chemotherapy and surgery, the cost of dying of cancer is not cheap. At the price patients are paying, physicians should not have the luxury of being ignorant about cancer microbe research, particularly when these microbes can be identified in cancer tumours.

With 40,000 American women dying annually from breast cancer, it is time medical science re-evaluated the parasite of cancer that James Ewing so casually dismissed in 1919. Perhaps if he hadn't been so adamant about cancer microbe research, his colleagues might have been able to do more to save him when he himself eventually died of "the Big C."

REFERENCES

1. Ewing J: The parasitic theory. In, Ewing J (Ed): Neoplastic Diseases (Ed1). Saunders, Philadelphia, 1919, pp 114-126.
2. Nuzum JW: A critical study of an organism associated with a transplantable carcinoma of the white mouse. *Surg Gynecol Obstet* 33:167-175, 1921.
3. Nuzum JW: The experimental production of metastasizing carcinoma in the breast of the dog and primary epithelioma in man by repeated inoculation of a micrococcus isolated from human breast cancer. *Surg Gynecol Obstet* 11:343-352, 1925.
4. Young J: Description of an organism obtained from carcinomatous growths. *Edinburgh MedJ (New Series)* 27:212-221, 1921.
5. Young J: An address on a new outlook on cancer: Irritation and infection. *Brit Med J*, Jan 10, 1925, pp 60-64.
6. Scott MJ: The parasitic origin of carcinoma. *Northwest Med* 24:162-166, 1925.
7. Scott MJ: More about the parasitic origin of malignant epithelial growths. *Northwest Med* 25:492-498, 1925.
8. Wuerthele Caspe (Livingston) V, Alexander-Jackson E, Anderson JA, et al: Cultural properties and pathogenicity of certain microorganisms obtained from various proliferative and neoplastic diseases. *Amer J Med Sci* 220:628-646, 1950.
9. Wuerthele-Caspe Livingston V, Alexander-Jackson E: An experimental biologic approach to the treatment of neoplastic disease. *J Amer Med Women's Assn* 20:858-866, 1965.
10. Wuerthele Caspe Livingston V, Livingston AM: Demonstration of Progenitor Cryptocides in the blood of patients with collagen and neoplastic diseases. *Trans NY Acad Sci* 34(5):433-453, 1972.
11. Wuerthele Caspe Livingston V, Livingston AM: Some cultural, immunological, and biochemical properties of Progenitor cryptocides. *Trans NY Acad Sci* 36(6):569-582, 1974.
12. Alexander-Jackson E: A specific type of microorganism isolated from animal and human cancer: Bacteriology of the organism. *Growth* 18:37-51, 1954.
13. Diller IC: Growth and morphologic variability of pleomorphic, intermittently acid-fast organisms isolated from mouse, rat, and human malignant tissues. *Growth* 26:181-209, 1962.
14. Seibert FB, Yeomans F, Baker JA, et al: Bacteria in tumors. *Trans NY Acad Sci* 34(6):504-533, 1972.
15. Wuerthele Caspe Livingston V: *Cancer, A New Breakthrough*. Nash Publishing Corp, Los Angeles, 1972.
16. Livingston-Wheeler VWC, Wheeler OW: *The Microbiology of Cancer*. Livingston Wheeler Medical Clinic Publication, San Diego, 1977.
17. Livingston-Wheeler VWC, Addeo EG: *The Conquest of Cancer*. Franklin-Watts, New York, 1984.
18. Cantwell AR Jr: *The Cancer Microbe: The Hidden Killer in Cancer, AIDS, and Other Immune Diseases*. Aries Rising Press, Los Angeles, 1990.
19. Hess DJ: *Can Bacteria Cause Cancer? Alternative Medicine Confronts Big Science*. New York University Press, New York, 1997.
20. Cantwell AR Jr, Kelso DW: Microbial findings in cancer of the breast and in their

metastases to the skin. *J Dermatol Surg Oncol* 7:483-491, 1981.

21. Cantwell AR Jr: Histologic observations of variably acid-fast coccoid forms suggestive of cell wall deficient bacteria in Hodgkin's disease. A report of four cases. *Growth* 45:168-187, 1981.
22. Cantwell AR Jr: Kaposi's sarcoma and variably acid-fast bacteria in vivo in two homosexual men. *Cutis* 32:58-64,68, 1983.
23. Stabiner K: *To Dance with the Devil: The New War on Breast Cancer*. Delacourt Press, New York, 1997.