Reflection and Examination of the Injustice That Occurred to Henrietta Locke

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Henrietta Locke was born in the family of Eliza (1886-1924) and John Randall Pleasant (1881-1969) under the name of Loretta. The circumstances under which she changed her name to Henrietta remained unknown. Her mother died during childbirth during the tenth pregnancy, and the father, realizing that he could not support his family, moved to Clover (Virginia), where he sheltered the children in the families of relatives. Henrietta lived in the house of her grandfather, Tommy Locke. (Callaway, 2023)

April 10, 1941, Henrietta married her cousin David Locke (1915-2002), who also lived in her grandfather's house ever since she moved there. The wedding took place after the appearance of the first two children, the eldest of whom was born when Henrietta was 14 years old. In late 1941, the couple moved to Maryland. Four months after the birth of the last child, Henrietta began to detect strange discharge in her underwear, and on February 1, 1951, she applied to Johns Hopkins Hospital. She was diagnosed with cervical cancer, and eight months later, despite surgical intervention and radiotherapy, she died at the age of 31. (National Institutes of Health, 2024)

During Henrietta's stay in the hospital, her attending physician sent the cells of her tumor (biopsy) for analysis to George Gey, the head of the laboratory for tissue cell research at the hospital. It turned out that the cells named for the acronym name Henrietta Lacks – HeLa, have a number of unique abilities. They multiplied twice as fast as cells from normal tissues, and they had a program to suppress growth after a certain number of divisions – they became immortal. (Reuters, 2024)

Such a cell line has made a furor in the world of medicine and biology, especially after it turned out that the cells are able to survive even the mailing mail that Gay was actively engaged in. Henceforth, scientists have the world's first stable and even eternal cell line that adequately imitates the essence of the human body. Now, it was possible to carry out experiments and experiments on a homogeneous cell line, which allowed considering their results as reliable and reproducible in other laboratories, and the cells did not die until the end of the experiment, which often occurred with other cell lines. The HeLa cells led to the immense development of molecular biology in the last third of the 20th century. Without them, there would not be many drugs, including polio vaccines. Cells flew into space (the first time – in December 1960). They are exploring cancer, AIDS, exposure to radiation and toxic substances, as well as many other things. Coincidentally, George Gay announced the beginning of a new era in medical research on the same day that Henrietta died. George Gay, for a long time, remained the only one who knew the origin of the cells but believed that confidentiality issues did not allow him to disclose the patient's name. Thus, the Locke family did not know that the Henrietta cells had revolutionized medicine. In 1970, George Gay died. (Associated Press, 2026)

By this time, a problem arose: due to imperfect at the time standards of sterility and techniques for working with cell cultures, it turned out that many other cell cultures from other types of tissues, including breast and prostate cells. These cells were contaminated with more aggressive and enduring HeLa cells, which, as it turned out, are capable of moving in the air with dust particles or on insufficiently washed hands. In the hope of solving problems through genotyping, one of the groups of scientists found Henrietta's relatives and asked them to give them DNA samples to map out the genes. Then, the name of the donor became known.

The question arose about compensation for the use of HeLa cells without the consent of the donor, but all requests remained unsatisfied: the respondents are no longer alive. Henrietta Locke was buried without a tombstone in the family cemetery in Halifax County, Virginia. Its exact place of burial is unknown, although the family believes that she is buried at the feet of her mother's grave. In 2010, Dr. Roland Patillo placed a tombstone in the form of a book on the grave.

It is important here to examine and discuss medical ethics emerging out of The Immortal Life of Henrietta Lacks. From perusing and tuning in to the study of the book of author Rebecca Skloot, and from analysis, it has been realized that medical ethics were particularly at the forefront of her thoughts during the ten years it took her to make the book. In the event that someone reads the book, the reader will see that she was additionally extremely worried that she is not simply one more exploiter of the Lacks family. That is one reason remarks, for example, this one, are exasperating and, in the meantime, not so much irritating. It features the measure of doubt the scientific community has managed to bank.

This is important to note that Henrietta Lacks was an African American woman who passed on of cervical tumor in the 1950s and whose disease cells, taken without her express assent, wound up a standout amongst the most critical apparatuses of present-day science.)

We've all profited from look into made conceivable by Henrietta Lacks and incalculable others whose names have been overlooked. The measure of doubt we've saved money with general society throughout the years is impressive and will set aside a long opportunity to moderate. Be that as it may, there are numerous motivations to endeavor to enhance our trust accounting report, not simply the slightest of which is our own self-intrigue. It may, how about we move down a bit and get somewhat more profound into how we comprehend medical ethics.

Ethics are a method for understanding our conduct toward each other. It's not an arrangement of tenets that one can essentially confirm and get an "I'm Ethical!" sticker. Furthermore, ethics change as our esteems as a public change. In the same way as other things in the public eye, what is considered ethical is regularly a matter of point of view, with riches and benefits frequently making a specific arrangement of presumptions (or making blinders). However, one of the objectives of ethics is to make methods for identifying with each other that consider "the other". Ethics that are controlled by or advantage just a single gathering are not extremely valuable.

Henrietta Lacks was dealt with when medical ethics were unique. Certain esteems were at that point

imperative, including tolerant secrecy; however were seen much contrastingly than now and connected distinctively to various gatherings. Our cutting-edge comprehension of the harmony between quiet Autonomy and medical Paternalism has moved extensively. Very few decades back, it was accepted that the doctor realized what was best for the patient, and the patient did not take an interest in basic leadership as well as was regularly not given critical data about their condition.

Practically speaking, this is an exceptionally troublesome adjustment to strike. No patient can have an indistinguishable viewpoint from the doctor (and the other way around). The most medically learned patient tossed into the debilitated part might have, to some degree, weakened judgment. Individuals come to doctors since we are specialists, and they need our assessment (in any event under the best of conditions). While we should not settle on choices for our patients, we should judge how much direction they need and the amount they need and enable them to settle on choices that benefit them. This ought to be done in a perfect world with the possibility of the patient's Autonomy being unequivocal in the reasoning of the doctor.

In the case of Henrietta Lacks, her Autonomy was damaged, at any rate, by present-day definitions. She made minimal decisions as to where she looked for her mind (because of both financial matters and prejudice), and her care was conveyed with little contribution from her. She was not knowledgeable, and imparting to her the points of interest of her care would have taken a considerable measure of work, which would have profited her. The disease cells, which went ahead to wind up the HeLa cell culture, were not just a result of her treatment. They were not extra from surgery intended to help her. They were examples taken unequivocally (to the doctors) for research, and this ought to have been imparted to her. She ought to have been given the choice of declining the technique. (See here for a dialog of the assent given by Mrs. Lacks.)

When helping guide individuals through critical well-being choices, we should remember our objectives. Express in present-day medical ethics are the objectives of Beneficence and nonnonmaleficence, that is, helping the patient and making an effort not to hurt them. These objectives, and that of Autonomy, are frequently in strife. In endeavoring to enable a patient to mend and keep their passing, we may suggest a specific conduct, for instance, a pill. Notwithstanding, when the patient unmistakably comprehends the dangers and advantages of the pharmaceutical, they may even now decay it, and in light of the fact that we esteem understanding Autonomy, we acknowledge this. We, for the most part, acknowledge it despite the fact that we see it as meddling with Beneficence. In any case, the guideline of Autonomy may request that we enable patients to decide for themselves what they think about accommodating, and regardless of how insane it might appear to doctors, a patient may decay a treatment we think about important.

Autonomy: In the case of Henrietta Lacks, the doctors, without a doubt, felt they were acting to help her, and examines felt they were acting to help humankind. Yet, Lacks and her family did not feel a similar way. The manners by which the doctors and society overall managed Henrietta and whatever remains of the Lacks family neglected to propel their poise and neglected to furnish them with Justice, two more present-day medical ethics.

The individuals who contend this is all unsettled would be astute to remember their own particular self-intrigue. Jeremy SingerVine talks about this at Slate.com, finishing up:

Assent, at last, speeds us toward revelation and cures by boosting logical trust inside the groups that those specialists fill in as well as rely on.

The way that Lacks kicked the bucket an unpleasant passing might possibly have been moderated by more ethical conduct. In any case, the misery of her family unquestionably would have. This is the place where ethics can likewise get somewhat troublesome.

Understanding Autonomy, Beneficence, and so on requires endeavoring to comprehend someone else's viewpoint. This is exceptionally troublesome for some. A remark from Ed Yong's blog raises one of these issues (and is common from what I've seen on the web):

Paying individuals for blood/tissue gifts is a terrible point of reference to set; a great many people are content with the information that they've helped medical look into. Furthermore, let's not overlook that had she declined authorization for her cells to be utilized at that point, research would have been deferred, yet somebody else cells would have been refined, and we wouldn't have this discussion. (Accentuation mine, PAL)

What "a great many people" would be content with is an intriguing suspicion, one which might possibly be valid, however what is critical in pharmaceutical isn't exactly what "the vast majority" need, yet what the individual sitting before you needs. While society's needs may have been served by Mrs. Lacks, they were not served in a way that saved her respect and Autonomy. Not exclusively is a utilitarian contention ethically offensive, but it's invalid, as the cells and resulting disclosures did not rely upon mishandling Mrs. Lacks.

Henrietta Lacks has served society long after her demise through the automatic gift of her tumor cells. With the distribution of her story, she has included another measurement of administration, one in which we can lift our talk of medical ethics.

Henrietta Laks is the first and only immortal person

An involuntary contribution of Henrietta Locke to medicine is invaluable: the cells left after the end of her death, for more than half a century, have been saved by human destinies. HeLa cells, photographed electron microscope (increase approximately a thousand times). Posthumous feats of living cells

In biomedical studies and in the development of new types of treatment, the culture of human cells grown in the laboratory is often used. Among the many cell lines, one of the most famous is HeLa. These cells, which mimic the human body in vitro ("in vitro"), are "eternal" – they can be eternally

shared, and the research data with their application are accurately reproduced in various laboratories.

On their own surface, they carry a fairly universal set of receptors, which allows them to be used to study the action of various substances, from simple inorganic to proteins and nucleic acids; they are unpretentious in cultivation and perfectly tolerate frost and conservation.

Henrietta Locke

Henrietta Locke was a beautiful black American. She lived in the small town of Turner in South Virginia with her husband and five children. On February 1, 1951, Henrietta went to the Johns Hopkins Hospital – she was disturbed by the unusual discharge that she sometimes found on her underwear. The medical diagnosis was terrible and ruthless – cervical cancer.

Eight months later, ignoring radiotherapy and surgery, she died. She was 31 years old.

As long as Henrietta lay in the military hospital of Hopkins, the treating doctor sent the tumor cells obtained by a biopsy to a study by George Gay, the head of the tissue study laboratory at the Hopkins Military Hospital. At that time, the cultivation of cells outside the body was only at the stage of formation, and the main problem was the inevitable death of cells – after the completion of a certain number of divisions, the entire cell line was killed.

It turned out that the cells labeled “HeLa” (the names of Henrietta and the acronym Locke) multiplied much more rapidly than cells from ordinary tissues. In addition, the malignant change made these cells immortal – they disconnected the program of suppressing growth at the end of a certain number of divisions. In vitro so that it does not happen before with any other cells.

This opened up unprecedented opportunities in biology.

Indeed, under no circumstances before this time, the researchers could not calculate the results obtained on cell cultures, entirely accurate: all tests were carried out on heterogeneous cell lines, which eventually died – from time to time, in addition, before it was possible to take any results. At this very moment, scientists became owners of the first stable and also eternal (!) Cell line, which adequately imitates the properties of the organism.

At a time when HeLa cells were found to be able to survive in addition to being mailed, Gay sent them to his employees around the country. It is not so long to wait for the demand for HeLa cells to grow, and they were replicated in laboratories around the world. They became the first “template” cell line.

So it turned out that Henrietta died just on that day, at a time when George Gay was speaking in front of the television cameras, holding a test tube with its cells. He announced that the era of new opportunities in the search for medicines and medical and biological studies began.

Because of what its cells are so serious?

And he was right. The cell line, similar in all laboratories of the world, allowed us to soon acquire and independently confirm more and more of these. It is possible to say boldly that the huge leap in molecular biology at the end of the last century was due to the possibility of culturing cells in vitro. The Henrietta Locke cells became the first immortal human cells that were ever grown on an unnatural nutrient medium.

HeLa trained researchers to cultivate many second lines of cancer cells. And despite the fact that now the priority in this area is shifting towards the cultures of cells of ordinary tissues and induced pluripotent stem cells (for the discovery of the way of returning cells of an adult organism to an embryonic state, the Japanese scientist Signa Yamanaka took the Nobel Prize in Medicine and Physiology in 2012) However, cancer cells remain the accepted standard in biomedical studies. The main advantage of HeLa is uncontrollable growth on simple nutrient media, which allows for large-scale studies with minimum costs.

Since the death of Henrietta, Locke cells of her tumor have been continuously used to study the molecular patterns of the development of a wide variety of diseases, as well as AIDS and cancer, for toxic effects of substances and radiation studies, the compilation of a huge genetic number and maps of second scientific problems. In the world of biomedicine, HeLa cells have become as familiar as cups and laboratory rat Petri rats. In December 1960, HeLa cells first flew into space in the Soviet satellite.

In addition, the scale of the experiments conducted by Soviet geneticists in space is now striking. The results demonstrated that HeLa feels great not only under terrestrial conditions but also in zero gravity.

Without cells of the HeLa line, the development of the polio vaccine created by Jonas Solck would be unworkable. By the way, Salk was so confident in the safety of the vaccine (a weakened poliovirus) that, in confirmation of the reliability of his own medicine, he injected the vaccine into himself, his wife and three children.

Since that time, HeLa has also been used for cloning (preliminary tests on the transplantation of cell nuclei before cloning of the famous Dolly sheep were conducted on HeLa), for working out the methods of thousands and artificial insemination of the second studies (some of them are given in the table).

In addition to science

The personality of Henrietta herself, Locke, for a long time was not advertised. For Gaia's physician, it goes without saying that the origin of HeLa cells was not a secret, but he believed that confidentiality in this matter was a priority, and for many years, the Locke family did not know that Henrietta's cells became famous throughout the earth. The mystery was revealed only after the death of the physician Gaea in the first half of the 70s of the XX century.

Note that the techniques and standards of sterility with the cell lines at that time were only emerging, and some inaccuracies emerged only after decades. So with the HeLa cells, after a quarter of a century, scientists learned that many of the cell cultures from other types of tissues, including prostate cancer and milk cells, were infected with more aggressive and enduring HeLa cells.

It turned out that HeLa is able to move in the air with particles of dust or on insufficiently washed hands and take roots in the cultures of other cells. A huge scandal erupted.

Hoping to solve the problem by genotyping, one of the groups of scientists decided to find Henrietta's relatives and asked them for DNA samples to map the genes. So the name of the donor became known.

By now, the use of HeLa cells poses fresh ethical issues related to the way tissues are collected, stored, shared, and commercially used. Current debates emphasize transparency, informed consent, data privacy, benefit sharing, and respectful acknowledgment of tissue donors and their families.

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