Severely ill patients suffering from cancer (lung, breast, prostate, or intestinal tumors) are being treated with increasingly complex and costly cytotoxic agents. An epidemiologist has recently analyzed survival rates, and his findings indicate that, despite alleged positive outcomes, patients do not live any longer.

Erike Hagge* (*name changed) was admitted to the Prosper-Hospital Recklinghausen on Christmas Eve. Surgeons cut out a malignant tumor from her intestine and removed her spleen. Eight months later, at the end of August, they discovered that the tumor had already metastasized.

Tuesday of last week the 64-year-old homemaker underwent her first chemotherapy session. Diluted in a clear liquid, two cytotoxic agents were transfused into a vein. “It is a nightmarish experience. I never thought I would get cancer” says Ms. Meyer. “But I hope that it will get better. They have been making a lot of progress with their chemotherapy.”

Someone not sharing this optimistic outlook is Dieter Hölzel, 62, from the Klinikum Großhadern at the University of Munich. “Regarding survival rates in patients with metastasizing carcinoma in the intestinal tract, the breast, the lungs or the prostate, we have not made any progress in the past 25 years,” the epidemiologist states. Together with a group of oncologists he created a database containing the medical histories of several thousand cancer patients who, since 1978, were treated in and around Munich according to the existing state of medical knowledge. All patients suffered from one of the four above-mentioned cancer types in an advanced stage. In Germany alone, these four are considered the primary killers with approximately 100,000 deaths per year.

For patients with cancerous metastases, chemotherapy has been regarded as the ultimate treatment for tumors which cannot be resolved with radiation and by surgical means. Over the decades, more and more new cytotoxic agents have been used, and often, the pharmaceutical manufacturers charge astronomical prices in return for the promise of a prolonged life.

“A chance for life!” says a 3-metre high advertising banner promoting the anti-cancer drug “Taxotere”. The manufacturer of a competing product advertises with the slogan: “Taxol – give life a chance.” Erika Meyer’s physician in Recklinghausen has a positive outlook: “Chemotherapy has made substantial progress over the past 20 years,” says oncologist Friedrich Overkamp, 47. It is possible, he says, to prolong life spans “substantially”.
However, the latest figures from the University of Munich’s cancer registry do not seem to reflect such a trend. Survival rates have not improved over the past decades, and cancer patients do not live any longer than they did 25 years ago. While the outlook has improved slightly for patients suffering from intestinal cancer, breast cancer survival rates have decreased over the years. According to epidemiologist Hölzel this could be due to random fluctuations which do not have any scientific impact, but he concedes that a worse scenario could be possible: “I am afraid that the systematic treatment with chemotherapy, particularly in patients suffering from breast cancer, might be responsible for decreased survival rates.”

This claim does not hold true for the drug therapy in cases of lymphoid cancers, Morbus Hodgkin, leukemia, sarcoma and testicular cancers; they can sometimes be healed in quite spectacular fashion. And it does not pertain to the pre-operative use of chemotherapy aimed at shrinking a tumor before a surgical intervention or the post-operative destruction of remaining cancer cells.

Experienced clinicians, however, have observed dire outcomes in patients with advanced-stage tumors. Gerhard Schaller, 52, a gynecologist at the University of Bochum, says: “Chemotherapy has done practically nothing for women with late-stage breast cancer – there is literally much ado about nothing.”

Similar findings are confirmed by Wolfram Jäger, 49, Director of the Gynecological Department of the Städtischen Kliniken der Landeshauptstadt Düsseldorf: “There have been and there are no success stories. We treat large numbers of women without tangible proof of success. If you tell your patients that, they will be utterly destroyed.”

Over the past 50 years, millions of cancer patients have undergone chemotherapy. The first patient ever, suffering from advanced-stage lymphosarcoma, was treated by U.S. physicians in 1942 with mustard gas. The tumor mass shrunk miraculously. However, the positive effect of the treatment stopped after three months, and the patient died – but the event rang in a new era, the era of using chemotherapy in the treatment of cancer.

The progress of chemotherapy lies rather in the relief of the pain caused by it. Cytotoxic agents manipulate cell multiplication in various ways. Since tumor cells multiply at a higher frequency than other cells, tumors and metastases respond more quickly to cytostatic agents by shrinking or sometimes disappearing entirely. On the other hand, this may also have a harmful effect on other, healthy cells multiplying rapidly, such as hair root cells or the blood-producing cells in bone marrow.

The spectacular results achieved in the treatment of leukemia or lymphoma prompted doctors to prescribe the toxic treatment to the large number of patients suffering from organ tumors. But, does chemotherapy allow them to really live longer? A comparative study addressing this important issue was never carried out.
The questions might never be answered. Clinical studies compare new and old cytotoxins; there are no control groups without treatment. In order to obtain approval by the regulatory authorities it is sufficient to provide some evidence of “statistic significance” of a new drug’s benefit over another existing cytotoxin in a small select group of study subjects.

The drugs are anything else but harmless. Some of the early chemotherapeutic agents resulted in a large number of deaths within a few weeks of treatment and were therefore not viable on the market. The treatment with cytotoxic agents meant for patients to go through hell alive. They lost their hair, appetite, vomited, lost energy and suffered from inflammations. Over time, some physicians started to question if the promised cytotoxins would do any more than shrink the metastases, and that only temporarily.

In September of 1985, Klaus Thomson, now deceased, but at the time Director of the Gynaecology Department at the University Hospital of Hamburg-Eppendorf, declared at an international congress in Berlin: “It should set us thinking to hear a growing number of doctors say: I wouldn’t allow that kind of treatment on myself."

Ten years later, the epidemiologist Ulrich Abel from Heidelberg University cast doubt on the effectiveness of chemotherapy. He had spent a year reviewing several thousand publications on chemotherapy and was shocked to find out that “for most organ cancers there exists no evidence that chemotherapeutic treatment – in particular the increasingly popular high-dose therapy – would prolong or improve the quality of a patient’s life”.

A number of renowned oncologists agreed – but this did not stop the proliferation of chemotherapy. Perhaps also because doctors didn’t want to admit to their patients that they were helpless in the face of cancer, this toxic treatment of cancer has become one of medicine’s dogmas.

This way, everybody was content: “The doctor is happy because he can offer something, the patients because they can take something, and the industry is happy,” says Dr. Jäger, a gynecologist practicing in Düsseldorf. He insists that, instead of wasting millions on expensive chemotherapy treatments, more funds be allocated to preventive monitoring.

The progress of chemotherapy is rather seen in the relief of the suffering caused by the very method. In earlier days, these cell toxins weakened patients to the point that they had to be monitored in hospital. Now there are remedies for hair loss, vomiting, loss of appetite, diarrhea and constipation; many types of chemotherapy may even be administered on an out-patient basis, and the patients hardly suffer any more from bouts of vomiting. “That way,” explains Dr. Overkamp, an oncologist in Recklinghausen, “I was finally able to install wall-to-wall carpeting in my practice.”
Calculated over a three-month period, Overkamp prescribes his 1100 cancer patients medication worth a total of 1.5 million euro. On a national basis, the revenue of cytostatic agents amounted to 1.8 billion euro for the period August 2003 to July 2004 – an increase of 14 percent over the previous year.

The latest bestsellers are antibodies capable of recognizing cancer cells. And again, the manufacturers anticipate a breakthrough – however, clear evidence of life-prolonging properties in terminally ill patients is lacking. In the meantime, the competitive edge created by the new antibodies has lead to the conventional, older cytotoxins being aggressively being pushed onto the market.

For decades, drug manufacturers have introduced cytostatic agents in ever-evolving forms; in the seventies there were 5 approved agents, in the nineties the number jumped to 25. “If every time a new agent appeared on the market, some small progress were made,” asks Dr. Hölzel, an epidemiologist in Munich, “then we should have seen remarkable improvements over the past decades. But the cancer registries do not reflect anything of that sort.”

It is equally difficult to find anything pointing out improved survival rates in the drug manufacturers’ research information leaflets. For patients with metastasized mammal carcinoma, for example, only 10 studies mention that a specific cocktail of cytostatic agents does a better job at prolonging life than another product. But due to the fact that uncountable comparative studies were carried out, according to Dr. Abel, an epidemiologist in Heidelberg, “statistically significant differences in a substantial number of studies are expected simply to be a product of chance.”

The proponents of chemotherapy like to refer to two studies confirming the treatment benefits. In one study, French researchers compared progress rates in 724 patients with metastasing breast cancer; survival rates three years after the diagnosis (and treatment between 1987 and 1993) increased from 27% to 43% (1994-2000).

For the epidemiologist Dr. Hölzel, however, this finding is the result of a fallacy. Obviously doctors arrived at the diagnosis of metastasizing breast cancer in the period from 1994 to 2000 earlier and quicker than in previous cases. And since the disease had not progressed too far after the initial diagnosis and since life expectancy was higher, the researchers counted more days until death, which would explain the improved survival rates – in the absence of any kind of therapy.

Another document cited regularly is the finding made public in August 2003 by researchers at the University of Texas in Houston. According to the publication the five-year survival rates in women with metastasizing breast cancer have improved continuously from 1974 to 2000 – from 10 to 44 percent. The article contains a review of cytostatic agents which allegedly have made this amazing improvement possible.
But there is one caveat: The study compares women with and without metastasis. "The more recent groups were distorted because they included patients with more favorable prognostic profiles", the authors of this celebratory article concede somewhere in the text.

"The big drawback with cancer medicine is the complete lack of any systematic documentation", complains Hölzel in the view of faulty conclusions. His critical assessment and his demand for scientific integrity and solid evidence-based research, however, will hardly stir the industry’s conscience, for it is doing very well without any proven benefits in terminally ill cancer patients.

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