COVID-19:

The incredible story of a life-saving drug

In May 2021, in Mexico City, the Minister of Health, Oliva López, appears before the assembled media representatives. She announces something astonishing:

The metropolis with its more than nine million inhabitants - comparable to the population of Israel - has successfully survived a dramatic COVID-19 wave with the help of the drug ivermectin, which was awarded the Nobel Prize in 2015. The latter had previously brought suffering and death to the region. In late December, the local government finally takes a desperate public health measure: as part of a targeted testing and treatment programme, everyone who tests positive receives an outpatient treatment kit with ivermectin as the core antiviral and anti-inflammatory medication, as well as supportive co-factors. The aim is to stop the disease in its infancy, as an increasing number of internationally renowned scientists and medical experts have been calling for months. The measure is being scientifically accompanied and investigated in the form of a large-scale study with the participation of the Mexican Ministry of Health. More than 230,000 participants will be included in the study. In mid-May, the results are known, a sensation: in the ivermectin group, hospital admissions are reduced by up to 76% compared to the control group. More people are successfully cured in hospital with the drug. Experts believe that ivermectin saves the lives of thousands of people in Mexico City. Epidemiological observations show a drastic drop in the number of cases and deaths shortly after the public health intervention began. The current excess mortality rate in Mexico City is below that of Israel. There are no side effects worth mentioning, which is in line with the experience gained so far in the decades of using the drug on over 3.7 billion people.

The story of ivermectin began when Japanese Nobel laureate Sanoshi Omura isolated rare bacteria from the earth in 1970 that, through fermentation, generated a natural substance that forms the basis of the drug. Due to its exceptionally high safety profile and use in mass campaigns to combat diseases that threaten public health in various countries, ivermectin is included in the WHO list of essential medicines. As it has already been on the market in human medicine for over 30 years, the patent is no longer applicable, so that it can be produced cheaply globally as a generic for a few cents per tablet. This fact makes it particularly accessible to poorer countries. A 2017 scientific article in the Nature Journal of Antibiotics also praises the compound's diverse applicability: "Ivermectin never ceases to surprise and excite scientists as it shows more and more promise of being able to improve global health by treating a range of diseases, with its unexpected potential as an antibacterial, antiviral and anticarcinogenic is particularly extraordinary."

During the COVID-19 pandemic, ivermectin will be first mooted by Australian researchers in mid-April 2020. An in vitro study conducted at Monash University's Biomedicine Discovery Institute by Wagstaff and colleagues shows ivermectin reduces viral load 5000-fold within 48 hours. This is a first signal. Further studies should provide clarity as to whether this result can be transferred to human use. Soon, the Australian physician Prof. Thomas Borody makes astonishing experiences in the treatment of COVID-19 patients with ivermectin. He explains that the drug is amazingly effective against COVID-19. As a result, the issue increasingly falls out of the headlines. Behind the scenes, however, clinical trials on the use of the drug for COVID-19 begin, especially beyond the industrialised nations. □A few months later, the world-renowned intensive care physician Prof. Dr. Paul Marik is noticing increasing signals for ivermectin's efficacy against COVID-19 in the results of the slowly accumulating clinical trials. Marik is considered by various experts to be an exceptional talent. With over 43,000 citations in prestigious journals, he is the second most published intensivist of all time worldwide. At the beginning of the COVID-19 pandemic, he founded the Front Line COVID-19 Critical Care Alliance (FLCCC) with other leading intensivists. His colleagues include the 'father of non-invasive ventilation', Prof. Dr. Umberto Meduri, Prof. Joseph Varon (head of the intensive care unit at United Memorial in Houston and author of over 830 peer-reviewed articles and ten textbooks) and Prof. Dr. Pierre Kory (head of several intensive care units during his career, pioneer in the field of non-invasive ventilation).

The doctors jointly analyse the existing data on the potential use of already proven drugs against COVID-19. Early on, they find that corticosteroids can reduce mortality in the late phase (they are contraindicated in the early phase). Against the WHO's recommendation, the FLCCC begins to successfully use an appropriate drug in ICU patients as part of a broader protocol they have developed called MATH. Prof. Joe Varon - known in the US as the COVID Hunter - uses the treatment protocol to reduce the mortality rate of hospitalised COVID-19 patients in his hospital to 5.1%. The national average in the US at this time is over 20%. Other physicians follow the FLCCC's example. It is only weeks later - after the large-scale study of an elite British university has finally also shown the reduction in mortality rates through corticosteroids in the late phase - the WHO changes its recommendation.

But the discovery of corticosteroids is not enough to confront COVID-19. When Prof. Marik becomes aware of the signals regarding the effect of ivermectin, the experienced doctors of the FLCCC analyse the entire data situation again. Soon they realise that with ivermectin they have something special in their hands: nothing more and nothing less than an instrument to get the pandemic under control. From all over the world, doctors and researchers are reporting significant successes in treating COVID-19 with ivermectin in trials. The results are independently replicated over and over again. Together, they produce a highly conclusive and robust result. From Argentina, Prof. Hector Carvallo of Buenos Aires University - who is conducting several studies, some of them larger, with medical personnel - reports astonishing results also on the prophylactic efficacy of the drug against COVID-19. The efficacy is over 90 %. These results were also replicated a short time later, among others by a study of the Argentine Ministry of Health. The results of 56 studies involving more than 460 scientists worldwide are now available.

In early December 2020, the FLCCC makes a dramatic appeal to the US Senate. At that point, the US and Europe are in the early stages of a deadly second wave. Prof. Dr. Pierre Kory, President of the FLCCC, takes over the lecture. Serious and deeply moved, the senior intensivist and lung specialist describes the scenes unfolding in intensive care units across the country. He forcefully explains that ivermectin is able to change the course of the pandemic, to protect people from severe courses through early treatment and to help even in the late phase. Ivermectin can prevent people from dying of the disease in the majority of cases. His urgent appeal to policy makers and regulators: Recommend the immediate use of ivermectin in the prophylaxis and treatment of COVID-19! The persuasive expert's speech is going viral. It is seen by over 12 million people on various platforms.

In the UK, Kory's speech also comes to the attention of experienced researcher Dr Tess Lawrie at Christmas 2020. Lawrie practised medicine in both England and South Africa before moving into treatment guideline writing and assessment as director of the industry-independent Evidence-Based Medicine Consultancy. Her clients include the World Health Organisation (WHO) and national regulatory agencies such as the NIH. Lawrie is also an experienced writer of Cochrane meta-analyses, which are considered the scientific gold standard. During her Christmas break, she sets about systematically reviewing the information provided by the FLCCC's intensive care physicians as well as the available data according to the Cochrane criteria. On 6 January 2021, she declares: "The emerging evidence is consistent and unequivocal. Ivermectin is effective in both prevention of COVID-19 infection and prevention of death. [...] Ivermectin should be used globally and systematically for the prevention and treatment of COVID-19. [...] Please, may we now begin to save lives.“

This is followed by other meta-analyses by high-ranking scientists such as that of Karale et al. (2021) with the participation of experts from the renowned US Mayo Clinic. They come to the same conclusion as Tess Lawrie and the FLCCC. Ivermectin is effective against COVID-19, especially in early treatment. In this setting, it can reduce mortality by up to 90%, according to Karale et al. (2021), the result is significant. The Japanese Nobel Prize winner in medicine, Prof. Sanoshi Omura, also reviews the data and advocates the immediate use of ivermectin, as do numerous distinguished professors from Israel such as Eli Schwartz from Sheba Medical Center, the USA such as Alessandro Santin from Yale University or Germany such as Abdulgabar Salama from the Charité or the immunologist Peter Schleicher.

So why is hardly anything heard of it in this country? Some observers assume that this has to do with the emergency approvals of the novel COVID-19 vaccines, which are still in the test phase. Their approval is therefore based on the fact that there are no other prevention and treatment options for the disease. If there were, the vaccines would first have to pass the test phase completely and successfully. However, the vaccines generate billions in revenue. With possible booster shots, they also represent an immeasurable future market for pharmaceutical companies as well as other stakeholders in the field of digitalisation (digital vaccination card, etc.). However, the reality in those countries or areas that already use ivermectin successfully across the board is that the vaccinations explicitly do not lose their licences as a result. In Germany, too, legal ways can be found to obtain a parallel emergency approval for both ivermectin and vaccine.

However, other interests stand in the way of ivermectin. These include, for example, that new, expensive and less effective drugs are currently being developed to be marketed over time as adjuvant therapies. These cannot compete against the highly effective, safe, off-patent and inexpensive ivermectin in a free market in all essential aspects. The thinking that prevails at western research institutions and universities also stands in the way of ivermectin. Here issues of monopoly over science and guidelines.

Meanwhile, reporting fails across the board. Various media become the extended arm of the PR department of pharmaceutical companies that launch products competing with ivermectin. All in all, articles on ivermectin are mostly tendentious, the writing is characterised by framing. In the Welt, ivermectin is even compared to "petrol" (supposedly effective against COVID, but not ingestible) in an article that can be described as the low point of media work. High-ranking specialists become "fans". Although the Süddeutsche interviews highly respected German experts who speak out in favour of ivermectin, none of their statements later appear in a corresponding article on the drug. Almost all German-language articles appearing on ivermectin have in common that they repeatedly refer to the statements of Prof. Dr. Stefan Kluge from Hamburg and people working with him. Kluge is cited in this context as the leading expert in the drafting of the German treatment guidelines to sow doubt about the efficacy of ivermectin. What always remains unmentioned in the articles in question is that Kluge has received research support and fees from Pfizer, among others, as well as fees from MSD (Merck) and Gilead. This represents an objective conflict of interest for him. All the companies from which Kluge has received fees bring products to market whose profitability would be threatened or significantly reduced by an approval of ivermectin. In addition to Pfizer's vaccine, these include Gilead's almost ineffective, but still in use, Remdesivir, which is in use, as well as two of Merck's drugs that are about to be launched.

The aforementioned pharmaceutical company Merck - the original producer of ivermectin - is often cited directly in articles to question the effectiveness of ivermectin. In this context, it is explained that even Merck opposes the use of ivermectin in COVID-19 and that this supposedly contains enough evidence in itself. Here, too, key information is withheld from readers. Merck has not held a patent on ivermectin for some time, and it is now produced worldwide as a generic by various smaller companies. The pharmaceutical giant therefore wants to place two new patented and expensive drugs that cannot compete directly with ivermectin on the open market in terms of effectiveness, safety and cost profile. These drugs are MK-7110 and molnupiravir (MK-4482, EIDD-2801). Merck has already signed an initial $356 million contract with the US government to supply the experimental MK-7710, which is still in the testing phase. Similarly, Merck is trying to place Molnupiravir on the market, despite a whistleblower to a US regulatory agency warns of its potentially mutagenic effects.

Kluge, among others, repeatedly presents a study from Colombia as an alleged showcase and reference for the supposed ineffectiveness of ivermectin. Of 56 existing studies, only this one will be encountered by the reader. In this study, too, ivermectin achieves a better result compared to the placebo. Kluge's straw: This result is not statistically significant. This is reinterpreted as failure. In this context, too, information is withheld. For by no means does this study represent a showcase study. On the contrary, more than 100 internationally renowned physicians and scientists worldwide are in favour of withdrawing this study due to serious errors and conflicts of interest on the part of the authors. One serious implementation error: Parts of the placebo group were inadvertently administered ivermectin, as officially admitted by the authors. Experts suspect that this affects a higher number of people than stated. There are also late changes to the study design in the course of the study. The conflicts of interest of the study directors turn out to be significant, similar to Kluge's case. Among other things, they receive grants from Merck, Gilead and Janssen, which bring products to that compete with ivermectin with regard to COVID-19.

Mind you, there are positive exceptions in the media landscape. In early May, Bayrischer Rundfunk reported objectively on the experience of a respected hospital in Munich, the Barmherzige Brüdern, which is successfully using an FLCCC protocol with ivermectin as the core medication to stabilise its COVID-19 patients. Journalists from the Mercury also show themselves as reporters who weigh up the available information objectively. Although Arte does not explicitly report on ivermectin, it regularly uncovers corresponding conflicts of interest in in-depth documentaries.