Quo vadis, Chirurgia? A senior's view on problems in surgery

*Friedrich-Wilhelm Eigler**
Director del Departamento de Cirugía General del
Hospital Universitario de Essen (Alemania)

EXCMO. SR. PRESIDENTE DE LA REAL ACADEMIA MEDICINA C. V.
DEAN OF THE MEDICAL FACULTY,
DEAR VICEPRESIDENT PROFESSOR AND FRIEND JUSTO MEDRANO-HEREDIA,
DISTIGUISHED MEMBERS OF THE ROYAL ACADEMIA,
DEAR GUESTS AND MEMBER OF OUR FAMILY.

"**Me siento muy honrado, por concederme el honor de pertenecer a esta Real Academia de Medicina de la Comunidad Valenciana**".
The great honor you offered me makes me feel happy and thankful.

Once more the connection between your community and my country is strengthened remembering the last decades of the 20th.century, when I visited several times Elche for different scientific sessions and got the honorable doctorate from the Medical Faculty of the Miguel Hernandez University.

I am very pleased to have the opportunity now to speak about my profession to this audience. Those of you, who know me a little bit better will expect a critical lecture and they will not be disappointed, though I`ll try to be not too sceptic about the future of surgery. But I regret that I cannot express myself in your language avoiding misunderstandings. I do hope, however, that we can meet each other in the English language.

Anyway, let us start with history of our subject according to the reasoning sentence: "how shall we know where we go, if we do not know, where we come from".

So let us look at the development of surgery since medieval time until today. Ernst Kern, the late prof of surgery at the University of Würzburg, was the first to point out that the progress in surgical treatment was accompanied with stepwise distance among the surgeon and his patient.

Surgery of course is as old as mankind, having helped in casualties as bone fractures and wounds. In the long period without the aid of anesthesia the surgeon, or in fact the workman, had a very limited range of work. If he had to operate on his patient, it had to be apparently very quick and close.

One can imagine how much pain, for instance, an amputation of a leg or arm he produced, which could hardly be influenced by alcoholic drinks.

But at the time, when anesthesia was introduced there was a serious discussion, whether it was allowed to abolish pain for instance in delivery, but also in operations.

Until the 19th.Century the other important problem was wound infection, which opposed nearly all other operations especially of the abdomen. But the surgeon`s success was based mainly on his skills and less on the circumstances.

No wonder that surgery started its great success only after the invention of anesthesia.(Morton in Boston) – and Anti- and then Asepsis.

In this new area, there are two major steps in development of anesthesia: For a long time - in Germany at least – it was the task of a nurse to apply the drugs during the operation – of course directed by the operating surgeon. So the surgeon had still contact to the whole patient.

But major surgery of chest and abdomen with long lasting procedures became possible only after the specialty of anesthesiology had developed.

In this overview I must omit the many inventions, which in the late 19th and the first half of the twenties century were made as for instance in diagnostic tools, in antibiosis, immunology and intensive care. All those were the condition for such extraordinary operations as Liver transplantation.

I would like to cite at this moment the famous American anesthetist Henry K. Beecher with the phrase: “There should be only good anesthetists! Why? Because a bad surgeon needs a good one and a good surgeon deserves one.” It characterizes the segregation of the surgeon from an important part of his former responsibility.

The next step was reached by the invention of Minimal invasive surgery. Only the Anesthetist has direct contact to the patient, while the surgeon does touch him only by the tools, introduced through small incisions of the abdominal wall. The preparation is then observed by a television camera, introduced in the same way, on a television screen. No doubt, again a physical dissociation.

On top of this and - so far – as the last step the so called **Robotic Surgery** was introduced.**.** Now the surgeon does work from an even larger distance at a computer using manipulators. Those colleagues, who used the system already, praise its exact and bloodless operating capacity. So far the expense seem to be justified in oncology operations, where the approach to the tumor is much more difficult than the extirpation itself.

Regarding the dissociating of doctor and the patient the spectacular so called Lindberg operation should be mentioned It was conducted by a French team between New York and Strasbourg on Sept. 7th. 2001. They used a robotic device for the patients operation in Strassburg and special aid of high speed fiber optic of French Telecom groups for directing the operation directly from New York.

At this stage, I think, there may be no doubt, that the progress in surgery was accompanied by physical and – perhaps in part - mental dissociation of the relationship between the doctor and his patient. One has to admit, that in situations with clear cut indication the operative technic may prevail over the direct medical contact with the patient. But what to do in difficult, life threatening situations? So far the results in robotic surgery seem promising, though the learning curve and, of course, the costs must be taken into account.

It looks as if in the future specialization not only in disease categories must take place, but also in medical and technical surgeons.

That brings us to the problem of surgical training

Modern Surgery results not only in an even greater part of specialization, but also in a growing worldwide spread between the developed and the underdeveloped countries. Furthermore there will always be the need to help in complications which will occur – hopefully – very few in the very sophistic technics, which must be corrected in the old manner.

Remember: from the beginning of surgery the surgeon had to work out his instruments himself or he devised it. Meanwhile the technical devices are overtaken by the industry with the consequence that training for surgery is not any more an uniform teacher –scholar – relationship but in part an outside event- by industrial firms driven task.

The ideal surgeon should not be a good technician only, but also a empathic medical doctor. In this sense **K.H.Bauer** might be quoted as follows: “In the way, he operates, you can judge the technician, in his indications the physician in the surgeon.” The problem of indication not only for operations but also for invasive diagnostic procedures is the most important part in human medicine.

The good doctor and especially the good surgeon will give advice to his patient from his own knowledge to the special situation of the patient and not like a merchant wanting to sell his products on his client.

But humanity in its whole dimension is difficult to teach because in essence there is nothing new like in scientific progress. The physician and philosopher **Karl Jaspers** stated already in the middle of last century**:** "It is not possible to plan humanity. It

develops itself without any principle progress new in each physician, in each hospital (clinic) by the reality of the medical human himself."

Looking at the spirit of our times and social milieu one must recognize many circumstances, which hinder the old tradition of the healers to take care of their patients as their highest priority. The following thoughts will follow this line.

From Economy to Commercialization!

In the area of globalization the changes in surgery and more or less in whole medicine is no national problem alone. But though the problem of costs is also worldwide, there are different national ways of solutions. In Germany for instance the primate of medical knowledge has been substituted by economic ideas or – more correct – by commercial rules.

While good medicine should always be economic in the sense of looking for the best way to cure the patient. The tendency, however, of making money by having low costs and good prize, leaving the patients human needs aside, does not support the spirit of helping the ill.

Regarding the famous German Surgeon Ferdinand Sauerbruch there are many stories about his special behavior. Once he had to operate on a well-known Banker because of a status colicus due to gallstones. When the banker asked for his bill a month later Sauerbruch supposedly answered: Please give me half of the sum you wanted to give me, while you were still in pain!

At least in Germany the situation in hospitals forces a short stay of the patients. This makes it more and more impossible in the university hospitals to demonstrate typical situations to students. There are trials to overcome this problem by using actors trained to simulate certain diagnosis'; but it might questioned, whether this results in the wanted attitude towards real patients. Anyway, it shows the demand to react to the changes in surgery and whole medicine as well. Unnecessary to say, that – in their context - this is also true for young surgical trainees.

Parallel to these changes there took place a change in life style, which at least do not assist the servant`s attitude, which is needed for good medicine: Starting with discipline in hygiene and ending with time for the suffering and not for a rigid time scale.

Bioethics and legislation.

Another problem of medical profession arose by the growing of bio-or medical ethics as a specialty mainly from philosophic or medical historic side. In special conferences in many hospitals special cases are discussed. The impression is growing, that this

replaces the own moral judgment, thus weakening the responsibility of the doctor in charge.

Nearly until this century there was a general consent that the very ill should not automatically be informed about her or his situation.

In the west-east divan Goethe put it in the poem, which translation from 1914 goes like this:

Aloud, aloft, my thanks to Allah rose!
Why? Because suffering He set apart
From knowledge. If what the physician knows
The sick man knew, despair were at his heart.

This poem characterizes the feeling of people at that time. For instance Hufeland, a very well-known physician at his time, is quoted with the sentence: to announce a patient his near death, will kill him.
With this background one must understand that physicians were very reluctant to tell bad news and in this way often withhold important facts from their patients. No wonder that after the Second World War with all the cruelty especially in our country the discussion stressed the autonomy of everybody, including the very ill. The medical profession or association should have followed this line by itself; but in Germany it was done by legislation as an aid for patients bringing an action against a medical doctor. In this situation it is understandable, that doctors in preventive defense tend to overdo the information now; though most patients don´t want too much, if there are no alternatives, and, indeed, law allows to stop information, if the patient is asked so. But young doctors are not aware of this and the patients think, they are forced to hear about every possible risk.

Another problematic legislation concerns the disposal of a patient in case of unconsciousness. By law it is suggested that people should explain their will providing such a situation with the effect, that the doctor in charge has to follow this wishes strictly. Several times it was reported that elderly patients have forgotten their medical testament, but the next of kind remember it, not knowing that the patient changed his mind in the meantime. In this situation the medical meaningful decision can be obstructed.

Let us omit the discussion about the physician`s role at the end of human life, which – to my mind – cannot be solved by legislation.

In summery than: in our time a high standard of healing has been reached, but it is in danger to lose the human spirit of dedication to the severe ill.

I would like as a senior not to be too pessimistic, but anyway: let me make two optimistic Suggestions for the future at the end of my talk:

1)Building of centers between different specialties

And 2)Harmonizing the postgraduate study in medicine - at least in surgery

For Example: Transplantation and Cancer Therapy

The Problem of specialization was mentioned earlier. Sometimes there are difficulties for the patients to find the right way for their special problem. Out of that the idea of cooperation between different disciplines has spread over the country. It seems to be a very promising development.

In my view it started with organ transplantation nearly fifty years ago, when the first dialysis patients, who wanted to get kidney transplantation, had to be discussed with nephrologists together with anesthetists, immunologists and pathologists to check the chances for a good result. The circle had to be enlarged, when liver transplantation started, by psychosomatic advice.

In the same way cancer centers were started. In my neighborhood I can observe a very successful cooperation in the problematic field of lung cancer. The therapy can be improved, if surgery, radio- and chemotherapy are individually coordinated.

The institutionalization of such specific centers is of great benefit for affected patients, because a large experience can be collected in a short time. Whether it is really necessary to certify these centers regularly, when they are controlled at the beginning is again a question of money. Anyway I would like to stress, that these institution seem to me a real progress for the future and I do hope, that surgery will play a constructive and major role. Coming back to the problem of robotic surgery, there could be a parallel to the strategy with the Cyclotrons for radiotherapy which are installed in few centers only. The robotic devices should also limited for some special centers with the aim to clarify the specific indications

Coming to the end of my lecture I would like to remind you that more than twenty five years ago by the initiative of my friend Justo Medrano we started the first Erasmus program for medical students in the European Union.

Besides all mentioned problems in educating and training in surgery wouldn`t it be a good idea to harmonize at least the rules for the postgraduate study in surgery? One aim should be the recognition of the national examinations throughout Europe. And again it could help to find rational solutions for the problem of the indication for different surgical techniques.

It would be a great satisfaction, if this ceremonious event may become the offspring for our professional unification among the member states of Europe!

I do hope, that against all apprehensions the sentence of Goethe will stay true: The surgeon does do the best of all business: without words to perform wonders and without wonder to heal.

Last not least, I would like to thank now the several advisers for my talk especially Justo Medrano and Jochen Erhard and you all for your attention.