Presidential address

Perfection and compassion – essentials in cardio-thoracic surgery

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I am entirely aware of the great honour and the privilege that was entrusted in me one year ago with the presidency of this prestigious Association. This gives me the opportunity today, at the threshold of a new century, and a new millennium, to share with you some thoughts which have occupied my mind for a long while. I shall develop my ideas about Perfection and Compassion and I shall relate them to what I consider to be the essentials of Cardio-thoracic Surgery (Figs. 1 and 2).

1. Historical aspects of medical ethics

Looking back at the development of Western medicine, we find its roots in ancient Greece. Hippocrates (Fig. 3) has generally been considered the most outstanding personality in this early Greek era [1]. It was this man who first separated medicine from religious thinking and ceremonies. He ushered in medical science as we know it today because he refused to accept magic and divine destiny as causes for disease. For example he did no longer accept then current concepts regarding epilepsy which are reflected in the term ‘morbus sacer’, occasionally being used still today. This term illustrates the ancient Egyptian belief that epilepsy is a sacred phenomenon.

Instead, he attributed it to natural disorders [2]. Hippocrates was also probably the first to regard the patient as a psychosomatic entity [3]. The acceptance of Hippocrates’ thinking waxed and waned from time to time. However, he as we all know, established a specific ethical code for medicine requiring from a physician medical skill and knowledge which I shall equate with ‘perfection’, philanthropy which I call compassion, and morality. Hippocrates was convinced that only practice of philosophy could enable physicians to develop these three qualities of perfection, compassion, and morality [4–6].

There were others in the European History of Medicine who revolutionized science and at the same time revived the Hippocratic idea of knowledge, compassion, and morality. One of them, if not the greatest, was Theophrastus von Hohenheim, better known as ‘Paracelsus’ [7] (Fig. 4). He is considered to be the originator of modern chemistry and pharmacology and he also gave significant impulses to the acceleration of medical knowledge. Allow me to tell you more about the fascinating biography of this man in order to pay him proper tribute. Paracelsus was born in Einsiedeln in the county of Schwyz in Central Switzerland in 1493 as the son of a physician who had emigrated from Southern Germany as the illegitimate son of an Earl. He moved to Villach in Austria in 1502. Paracelsus left Villach at the age of 16 and probably attended the Universities of Tübingen and Heidelberg. There is considerable evidence that he spent two years at the University of Vienna, where he completed his Baccalaureat. He then continued his studies in Ferrara in Italy where he became a Doctor of Internal Medicine and Surgery [8]. Paracelsus was extremely critical of contemporary medicine, physicians, and medical schools. He criticized the orthodox attitude and passivity. He himself displayed extreme devotion to the suffering and sick patient. As a combat doctor on battlefields in the Netherlands and in Sweden he practised surgery with remarkable skill. He even reached Moscow where he was taken prisoner by the Tartars but escaped to the Balkans. He also travelled and worked in France and on the Iberian Peninsula. As a veritable pan-European physician he amassed a tremendous body of knowledge. At the age of 32 he was appointed Professor and Chief Physician in the city of Basle. He was the medical authority and doctor for another famous contemporary scientist: Erasmus of Rotterdam whom he treated as his patient. His radical views and intrepid attitudes towards the establishment of colleagues and pharmacists whom he rightly accused of greed and incompetence (Fig. 5) distinguished him from his peers and made himself influential.

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enemies [9]. When his staunch supporter the publisher Froben in Basle died when attending the Frankfurt book fair in 1528 nearly two years of fruitful and frenetic activity were abruptly aborted. It is a miracle that Paracelsus one hundred years before Galilei was boldly opposing the Aristotelic dogmata without being banned by the Catholic Church. Paracelsus’ inexhaustible energies stemmed from his firm Christian belief. He transformed the ethical ideas of Hippocrates, whom he admired, into the culture of Christianity. Paracelsus was a man of compassion in its most complete form. He exposed himself to the risk of infection of the plague in 1530, after his escape from Basle, as he did earlier to the dangers of the battlefield. When he died in Salzach back in Austria in 1541 he left a heritage of a large collection of scientific scripts as well as the seed of his thinking in the field of ethics and morality [8].

After Paracelsus it was the Scottish physician John Gregory who lived from 1724 to 1773 who with his profound ethical philosophy exerted great influence on European medicine. His works on medical ethics were translated into French, Italian, and German. It goes without saying that they had as much importance for medical ethics in America. Gregory bore the imprint of his countryman, the
philosopher David Hume (1711–1776) (Fig. 6), and he postulated ‘that the chief of moral qualities required in the character of a physician be humanity. Sensibility of the heart makes the physician feel for the distresses of fellow creatures and sympathy naturally engages the affection and confidence of a patient which in many cases is of utmost consequence to his recovery’ [10].

Guided by the medieval Scottish Highland principle of paternalism, i.e. a life of service and sacrifice to those ranking lower in the social hierarchy he was critical of the monetary interest of those physicians who concentrated on private practice. Here his convictions converge with those of the French philosopher Michel de Montaigne (1533–1592) who identified himself with Seneca’s aphorism: ‘Recte facti, fecisse merces est: officii fructus, ipsum officium est’ (Fig. 7) – ‘The reward for a good deed is in its doing. Duty is its own fruit’ [11].

You will recognize in this aphorism the spirit and the principle of Kant’s Categorical Imperative [12]. In Germany it was Immanuel Kant (1724–1804) who was influenced by David Hume’s philosophy [10], just as Gregory had been in Scotland.

A later contributor to English literature in the field of medical ethics, in the tradition of Gregory, was Sir Thomas Percival, M.D. (1740–1803) who published an important treatise on Medical Ethics [13]. He wrote: ‘Physicians should unite tenderness with steadiness and
condescension with authority as to inspire the minds of their patients with gratitude, respect, and confidence.’

In more recent time a different emphasis was set by the philosopher Karl Jaspers who was a doctor himself. His words ‘The doctor is neither technician nor saviour, but human being for human being’ indicate that paternalism was replaced in the relationship between the patient and the physician by increasing maturity and responsibility on the patient’s side.

In most European countries during the 19th century and in the beginning of the 20th century students of medicine had enjoyed a humanistic education in the high schools. Thus they had a philosophical grounding in ethics in general from the Greek and Roman classical age to the times of Montaigne, Hume, and Kant. This had an impact on the academic lectures and on the behaviour and the attitude of medical professors at a time of revolutionary progress in science. There was fortunately an enormous increase in therapeutic achievements that enlarged the scope of successful healing and cured hitherto incurable diseases. This was, in my view, a process towards increasing and still ongoing perfection. In reverse proportion, the emphasis on compassion subsequently decreased in significance and importance. This trend held and holds true for society as a whole and, unfortunately, spilled over into the community of medical professionals. Already Bismarck’s physician Ernst Schwenenger recognized this change when he wrote ‘The doctor’s science kills his humanity’ [14].

2. ‘Perfection’

Any attempt to define the meaning of ‘perfection’ for and in cardio-thoracic surgery, must acknowledge that this is not a static nor an absolute icon. Instead, the properties of perfection develop and change with time. One can assess perfection in the growing body of achievements and general scientific comprehension which is available to everyone, and also with regard to technical equipment for diagnostic and therapeutic purposes. Therefore, at least in part the degree to which one can achieve perfection depends on financial feasibility and on the extent to which society is prepared to invest in new technology. In parallel, there is the development of individual perfection or excellence. That is the perfection of the individual thoracic or cardiac surgeon on his or her path from early education through to mastership. Again, this is a dynamic process. The level of individual perfection will rise in a natural way since individual experience and continuous adoption of latest knowledge will finally lead to a culmination of abilities [15]. For a surgeon who might be challenged by difficult intraoperative situations whether in cardiac surgery or in cancer surgery of the chest, perfection includes manual skills combined with urgent decisions based on complex reflections. Within the modern structures of hospitals the hierarchy of responsibility usually allows young surgeons to grow with the demands imposed upon them in their respective roles and at appropriate levels. Thus they should be enabled to provide optimal treatment and safety for the patient.

3. Public perception and discourse

Why did I take you on this excursion into the history of ethics and why did I define what I mean with ‘perfection’? My answer begins with a look into public opinion and perceptions as expressed in the media. Everybody is familiar with the critical and often even hostile articles in recent years dealing with physicians’ errors. Specifically, let me analyse one article published earlier this year in a German magazine [16]. The title was ‘Fatal Bungle’ (Tödlicher Pfusch)/‘An Increasing Number of Cases of Malpractice by Stressed or Greedy Doctors’.

In this article there are three categories of accusation:

1. Technical errors. These include faulty technique, particularly in surgical disciplines as well as diagnostic errors or misinterpretations.
2. Normative shortcomings [17]. By this I mean lack of accuracy in documentation, lack of effort, ignorance, and arrogance. One example cited in the article is that the patient does not know the name of his or her surgeon or that he or she is not included in the bedside dialogue. I may add from my own experience another example: that the doctor does not know the name of his or her patient which, regretfully, in practice happens not infrequently.
3. Moral deficits. These are dishonesty, suppression of facts to the patient’s disadvantage in expert opinions on malpractice, and consciously taking incorrect fees from a patient or his insurance.

I shall not discuss the latter category in detail, except to call attention to a recent article in the weekly general journal of German physicians (Deutsches Ärzteblatt). In this article the Federal State Attorney described a 10 million Euro fraud as the tip of the iceberg [18]. Such lies, lack of correctness, and fraudulent appraisals are not excusable. All of them are violations of the oldest ethical maxim of the medical profession. Unfortunately, clever defence counsel can sometimes expiate blame for unethical behaviour in this category, and so there is a serious risk that our profession as a whole will continue to suffer from this hazard at least to some degree and perhaps even in future generations. It is out of question that any accusation of malpractice has to be reviewed by fair, unbiased, and honest physicians, and that the best judgement of each physician must be respected if no malpractice is proven.

4. Reasons for imperfection

I return to the category of technical errors or deficiencies
which have considerable impact on the results of cardiac surgery and thoracic surgery. The boundaries of our field have expanded and so we have to accept increasing risk factors, and we have to cope with ever higher complexities of disease or of malformation. Examples of this are induction therapy with radiation and/or chemotherapy in advanced stages of cancer prior to surgery, complex congenital heart disease in infants, and coronary surgery in the face of extensively scarred myocardium. Relatively minor shortcomings under such conditions may induce a chain of adverse reactions and, finally, may contribute to death. The boundaries to failure from disease and failure as a result of imperfect treatment are not always clear. In the article which I mentioned before [16] it has been said that 25,000 patients in Germany succumb to malpractice every year, twice as many as to traffic accidents (Fig. 8). In comparison, the Minister of Health in the United Kingdom, this year has estimated that at least 400 patients die annually from malpractice in the National Health Service [19]. Both figures are alarming but the different dimensions are striking. Since two thirds of all malpractice accusations are made against the 16,000 surgeons accredited in Germany, statistically, each of them every year would be responsible for one malpractice death. I leave it to you to qualify the credibility of this article. Although we do not know the exact numbers for our own specialty, we must be concerned with the very real problem that avoidable complications and even fatalities certainly do occur also in our specialties of thoracic and cardiac surgery. We must identify the predisposing conditions. In my experience there are three:

1. Lack of continuity in the information chain due to excessive time devoted to administrative matter, and a replacement of work ethic by shift work and overtime compensation.
2. Lack of broad medical knowledge in the practice of preoperative and postoperative care. Many young surgeons prefer to delegate the management of single problems to various specialists than to care for their patients themselves. For example, the management of rhythmic disorders may be delegated to the cardiologist, that of infection to the microbiology division, and the alleviation of pain to the pain group. At least to the degree that such delegation of responsibility occurs without personal involvement, delegation creates the danger of uncoordinated actions. Broadly based surgeons are able themselves to manage most of the problems of their patients, and when consultation is needed they insist upon maintaining primary control on behalf of their patients, thereby insuring continuity.
3. Sub-optimum performance of the operative procedure itself. This, like the tendency to delegate too much responsibility, is a consequence of inadequate surgical education and insufficient practice during postgraduate training before undertaking operations independently. General Thoracic Surgery is particularly exposed to this risk because it is too often practiced episodically in numerous non-specialized institutions by incompletely trained surgeons [20]. In summary, what effectively is leading to or permitting technical errors is a deficit in ‘perfection’.

5. Atrophy of humanity in medicine?

The category of normative deficiencies pertains particularly to the system in hospitals and to a lack of that compassion which I have described previously. The patients’ worries, fears, and concerns are often insufficiently considered. Patients, in fact, do complain about insufficient interaction with persons within the nursing and the medical staff. Diagnostic investigations are scheduled without proper explanation to the patient. Many physicians seem unaware that each new diagnostic step will raise new anxiety particularly in patients with cancer. The worst error would be to disregard this anxiety and also to delegate the task of restoring equanimity to a psychologist similar to so many other tasks which already have been delegated like intensive care, pain, and so forth.

A recent very critical article by Albert Gunn, [21] Associate Dean for Admissions and Associate Professor of Internal Medicine at the University of Texas/Houston Medical School contains several statements which find my entire agreement. Gunn complains of a general insignificance of ethical considerations and attitudes which he sees in the medical scene. One of his principle statements, with which nobody would argue is the following: ‘The physician’s primary duty is to his patient, not to the science of medicine, not to public health, nor to society’ [21]. This is not intended to demean the importance of scientific progress. Instead, the purpose of this statement and of Gunn’s message in general is to put patient care issues into the appropriate order of priority. Research, progress, orga-
organization of health care have to be subordinated to the primacy of the individual patient’s needs. It is the physician’s responsibility that this remains his or her overriding priority, very much in the tradition of the great pioneers of medical ethics to whom I referred earlier. Gunn’s suggestion that the loss of this humanity in the relationship between the patient and his physician and the conversion from the patient as a human being to treating a patient like a biomechanical system is the main reason for the spectacular drift to alternative medicine is likely to be correct. Particularly vulnerable to this potential problem are patients with cancer.

Gunn also expresses his dislike towards the new catchphrase, ‘evidence based medicine’ because this terminology suggests medicine based on science without reference to the patient as a person. He attacks the increasing delegation of physician’s responsibilities to specialists for ethics to whom he refers as ‘Ethics Apparatchics’. Such ethicists ‘might not even be physicians in the place of spontaneous warm-hearted surgeons. If the devil is in the details the current ‘science’ of medical ethics is diabolic’. The reason for this trend which is probably not confined to one single institution in the United States but which we can observe ourselves, according to Gunn, is the absence of a philosophical and/or religious background. In fact, it is probably correct that in the selection for the medical profession as a whole, and in the qualification for leadership positions scientific potential is weighted too heavy. In reality, it is ethical scruples that might even disqualify potential or actual leaders or hinder them in the course of a professional career [21].

6. Answers

Where shall we aim for the future? It would avail little to draw a negative picture without suggesting solutions for the problems to which I have alluded. I wish to focus on how to achieve as much ‘perfection’ as possible in cardiac surgery and in thoracic surgery. To me it looks quite possible to calculate how many procedures of increasing complexity can and should be delegated to a trainee over an appropriate time period without depriving the senior surgeons of continuing practice. Considering the empirical work load in an individual institution it should be possible to estimate how many trainees may be accepted in a training program. This needs to be done, but it is beyond the scope of this address to undertake these issues because of the variety of circumstances which exist in various European countries. Suffice it to say that playing the piano cannot be learned by visiting a concert. Like playing the piano, surgery is an art that requires a sufficient volume of regular exercise to maintain ‘perfection’ or excellence [22]. The public and the administrators need to understand that perfection of the art of surgery cannot be achieved in a climate of obligatory limits of working time. Like driving a race car, surgery needs to be as safe as possible. Nobody would be allowed to drive a racing car if he or she would not undergo appropriate training to minimize the risks of the race, and similarly no surgeon should be allowed independent practice until it is as assured as possible that he or she is a safe surgeon.

In thoracic surgery it appears to be more difficult to establish a proper schedule of operative training. The specialized centers where the junior surgeon should be trained are increasingly confronted with the referral of high risk patients and advanced cancers whereas patients with supposedly minor cancer disease and better functional reserves are treated in non-specialized institutions scattered all over the country. Professor John Benfield [23] in his Presidential Address as the President of the Society of Thoracic Surgeons (STS) in 1996 has discussed this dilemma in much detail. Therefore, we shall continue in our efforts to convince society, health authorities and insurances of the need to concentrate surgery of the chest and, in particular, lung cancer surgery in Centers of Competence as this is already the case in most Scandinavian countries and in Poland.

An important step has been taken to ensure standards of knowledge and capabilities by the European Board Certification. We must encourage our well trained junior colleagues to make use of this offer. This would allow flexibility and mobility within Europe from those areas which have too high numbers of qualified thoracic surgeons to those areas where there is a shortfall.

How can we respond to the obvious deficit in ethic awareness as the prerequisite of compassion? In my opinion, the best answer is by personal example in clinical every-day practice. This is the most effective approach. Moreover, this cannot be emphasized too early, education in ethics should begin during medical school. It should not be primarily, and certainly not predominantly, taught by non-medical specialists. I see this as a responsibility of teachers of clinical medicine. To me this emphasis on ethical awareness seems perhaps even more important than that on the perfection of technique and competence.

In closing, I return to my theme of ‘perfection’ and ‘compassion’ in cardio-thoracic surgery. I want to underscore my belief that for achieving the highest standards of surgery compassion should be stressed at least as much as striving for perfection. Despite the dominance of a materialistic way of life in our times, just as in the days of Hippocrates, the patient with cardiac, pulmonary, and other diseases of the chest longs for and deserves both, perfection and compassion.

References


