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MEDICAL PROFESSION CHANGES BETWEEN RELIGION, SCIENCE, SKILL, ETHICS, LAW AND ECONOMICS

Introduction to the issues of *MdS* on the topic: "to be physician today, from the past to the future".

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SUMMARY

How has the medical profession changed during the centuries? How has the evolution of the profession been influenced by the balance of different issues, e.g. magic, religion, philosophy, science, technology, ethics, law and/or economics? One needs to examine many historical changes leading from the hierarchized medicine of Ancient Egypt to the Asklepiadic and Hippocratic medicine at the time of Plato, from the newly organized medicine of the Renaissance to the emerging social medicine of the XIX century, from the nosological medicine centered on the evaluation of the symptoms to the medicine which explores the human body through technologies. Furthermore, an overview from the past to the future should analyze the new doctor-patient relationship in a health system of managed care, between market and solidarity, between the efficientistic guidelines of the providers (hospitals, physicians, etc.) and an anthropocentric view of the rights of the citizen-customers. These problems are presented and discussed by many Authors in three issues of Medicina nei Secoli (II/III.1997-I.1998) as an aid to understanding what it means to be a physician today, from the past to the future.

The extraordinary advancements of both science and technologies at the end of this century have dramatically changed medicine perspectives in several ways. These changes concern not

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only the healing or prevention of disease, but also organization, financial support and cost (in the hospital and within the territory) of care. They affect the professions (in the relationship between general medicine, specialities and allied professions, e.g. nursery, rehabilitation, etc.) and finally the rights and expectations of the citizens/patients. Because of social improvements, preventive medicine and medical research (early diagnosis, vaccines, effective drugs, etc.), life has changed both in length and quality. New extraordinary advancements are foreseen in the development and use of new biotechnologies (with the possibilities of "predictive" early molecular diagnosis, organs and tissues transplantation, gene therapy, specifically engineered drugs, etc.).

While the effective clinical impact of such new technologies remains to be seen, two main questions arise: i. the cost/effectiveness ratio of the new therapeutic approaches; ii. who will have the power to decide different applications of biotech medicine - the patient, physician or society?

The extraordinary evolution of the new field of *bioethics* has developed to answer these questions. Interestingly enough, the bioethics epistemological code has been mainly developed by jurists, theologicians, philosophers, historians, etc. more than by physicians. This aspect is underlined by the observation that medical students spend less than 1% of their total mandatory time (in the European Union: 5,500 hours) during their academic courses of medicine being trained as future physicians in the learning of behavioural patterns, i.e. respect of the patient, philosophical and historical worth of medicine, clinical bioethics and choice of clinical strategies in the balance between cost, effectiveness and rights of the patient. The scarce attitude of doctors towards human sciences[1] is due to the low consideration of these *patient-centered* issues as *inner part of the profession*. On the other hand, this matter does not meet any relevant generalized interest by professional medical associations, which aim to protect the profession and the physicians through deontological rules on a *doctor-centered* view. Thus, a social debate arises about *medicalization*, medicine, medical profession and rights of citizen-patient.

Where is the medical profession going?

In the age of biotechnology, when science fiction and reality appear to come together and patients discover new possibilities in the diagnosis and cure of diseases, we should ask how the medical profession will change in the future. There is indeed no doubt that the role of patients is becoming ever more relevant throughout the disease, *from care to cure*, as indicated by the introduction of the *informed consent* practice as mandatory. In this context it is surely interesting to compare today's principles on consent and the platonic idea on the same matter. Information for the patient was at that time a sort of persuasion and physicians avoided life threateining practices (Plato, *Laws* 720d). In contrast to the use of cauterizing procedures, Greek-Roman medicine stressed *light* therapeutic procedures, expressed by the maxim *primum non nocere* (above all, do no harm; *Epidemics*, I.2.11), which is the *principle of non maleficence*, versus *primum adiuvare* (above all, help), which is the *principle of beneficence*[2]. Actually the original Hippocratic sentence contains both principles, *to help* and *not to harm* (*askein perì tà nosemata duo, ophelein è mè blaptein*).

The preference for a *soft medicine* is well expressed by Pliny the Elder as reaction against the foreign corruptive *Greek* medicine[3]. If a *soft medicine* was necessary in the arcaic age, *soft effective medicine* is the goal of contemporary molecular medicine, which uses *recombinant* molecules to restore a loss of cellular and/or specific functions. Medicine has become more and more effective than in the past and *do not harm* today is a principle against *overtreatment* and/or *overdiagnosis*.

Thus, together with selected experts we would like to discuss and answer to the questions: how the medical profession has changed during the centuries? How has the evolution of the profession been influenced by the balance of different issues, e.g. magic, religion, philosphy, science, technology, ethics, law and/or economics?

Knowledge of the problems of the past may be of help in reaching a dignified and compassionate qualification of a doctor today, because many historical passages may clarify our debate. It is important to consider the numerous historical changes

from the hierarchized medicine of Ancient Egypt to the templar Asklepiadic medicine and rational Hippocratic medicine at the age of Plato, from the newly organized medicine of the Renaissance to the emerging social medicine of the XIX century, from the medicine centered on the physical evaluation of the patient to the medicine which explores the human body through technologies.

Furthermore an overview from the past to the future should consider the analysis of the new doctor-patient relationship in a health system of managed care, between market and solidarity[4], between the *efficientistic ethics* of the providers (hospitals, physicians, etc.) and an *anthropocentric view* of the rights of the citizen-customers. This is the problem of the medical profession today.

We had originally planned to collect many articles in this field to publish them in a special issue of *Medicina nei Secoli*: however, since our initiative received an unexpectely a high consensus three issues are now being dedicated to discuss the meaning of the topic *"to be physician today, from the past to the future"*.

To be physician in Antiquity (issue I - MdS II.1997)

This first issue concerns the so-called *pre-scientific medicine* and the profession in Antiquity and the Middle Ages (pre-Hippocratic medicine, Greek medicine, Talmudic, etc. as well as the instruments used for the profession, *medicha* or midwife, etc.). One could say that, with the exception of obstetrics, medicine was at that time generic, without specialties. This opinion is quite wrong because medicine is an applied science, devoted to practical applications. In fact specialities arise for practical purposes (mainly to cure a very common disease) and there is a parallelism between the autonomous organization of specialties in Pharaonic Egypt and the United States of America at the end of the XIX century when medicine was organized into specialities: medicine, surgery, gynaecology and pediatrics, the first acknoweledged speciality was ophtalmology - e.g. Egypt -, the dermatology[5]. In the Pharaonic Age medicine was hierarchised (see the paper of T. BARDINET), with a medical district chief officer, who co-ordinated the activity of general practitioners (*sounou*)

and specialists (e.g. ophtalmologists). Well organized medicine may also be found in the Talmud (see S.S. KOTTEK), because the healing art is recorded with the aim of establishing the law (*halakhah*), regarding licensing, liability and fees; ethics and etiquette may also be discussed.

Lay medicine next to the religious practice was generally observed in the Asklepìeia, wich raised the problem of the relationship between rational medicine and *other* expectancies of healing, mostly of popular origin, as in the biblical or talmudic period (see S. KOTTEK), as well as today in the Siberian medicine-man (F. VOLTAGGIO).

Two papers focus their attention on medicine from the patient point of view, one is devoted to the psychology of unphysical diseases, the other deals with the role of doctor and patient dialogue. It is well known that the Hippocratic medical therapies were in general physical (diet, drugs, excercise), but we can also underline that many Authors of Late Antiquity developed special consideration of the psychological aspect of medicine and therapy. This occurred not only for music or theatre as forms of general therapy, but also as individual therapy for madness (see F. STOCK).

The role of the patient is discussed by A. JORI in his paper regarding medicine in Greece in the fifth-fourth centuries. Two views are presented, one in which doctors inform the patient using a persuasive dialogue, the other in which the medical practitioner is the only person with scientific knowledge so that there is no need to get information from the patient (as in the Hippocratic *The Art*). Actually, also the original *hippocratic spirit* is paternalistic. Only recently has the involvement of the patient in medical decisions is part of a more equilibrated humanistic approach to medicine, as JORI concludes. Moreover, D. GOUREVITCH in an enjoyable well written French paper, explains that there are both good (meek and cooperative with the physician) and bad patients, who disobey and jump from one doctor to another, slanderering both. This situation is complicated when the patient is a woman, as when the physician is Galen. And if a woman is not the patient, but the doctor? V. GAZZANIGA offers an historical view of women in the medical profession,

mainly at the time of Soranus and Galen (who quoted many skilled women) and discusses how the role of women has been confined to the field of a *closed* specialistic medicine.

The great difference between ancient and modern medicine is due to the absence of the concept of application of measures in Antiquity (only under the influence of Galileo's work did the need of a quantitative method become accepted and applied by Academic medicine). The other difference is in the technology, which changed very slowly in the past, as shown by the analysis of the medical instruments in the Roman world (R. JACKSON); in fact they acquired distinctive forms that were kept unchanged for centuries.

Being a physician from the Middle Ages to the 19th century (issue II - MdS III.1997)

The advent of Christianity in medicine changed the interpretation of diseases, which become not only physical deficiencies, but also the result of a spiritual deficiency. As S. COSENTINO says, saints more than physicians are the symbolic figures to whom people or suffering patients entrust their anxiety for salvation. On the other hand medicine was conceived as *ars honesta* and physicians as *viri honesti*, included in the moral category of craftsmen or tradesmen, thus devoted to the medical assistance of the needing neighbour, like the good Samaritan:

...A man was going down Jerusalem to Jericho and fell among robbers...Then a Samaritan came there on his travels, saw him, and took pity on him... bandaged his wounds... set him on his own donkey and took him to an inn...(Luke 10. 30-37).

Thus, in Christianity a moral view of what constitutes a good physician prevails together with a religious interpretation of the diseases, as St. Augustine says *cura corporis ad sanitatem animi referenda est* [6]. On the contrary, Islam develops a lay Hippocratic-like view of the good doctor, as evidenced by U. WEISSER, who analyzes three of the so-called *mirrors for physicians* dating from the 9th to the 12th century.

A conventual medicine rises in the West because of Christian influence, whereas a lay medicine is promoted by the mecenatism of the royal courts, from the Middle Ages to the Renais-

sance (the Universities themselves *protected* by Popes and Kings). Moreover, when medicine enters the way of an epistemological revolution after Galileo, Harvey, etc. the efficacy of the therapy is not so good as to avoid the appointment of an astrologer together with the first physician (*protomedichus*), T. PESENTI says. The lay desecrating medicine of Paracelsus rose during the 16th century under astrology and alchemy, between micro- and macro-cosmos. Paracelsus, who fired at Basel the *sacred* books of Avicenna and Galen, invited physicians to search the *archè* of livings: he strained too much after the principles of life as a general effort of his own activity, which led to an ethical view of the medical doctrines, including the doctor-patient relationship and the whole cycle of life (birth, disease, death), that is the strong ethical message of Paracelsus (D. von ENGELHARDT). The view of Paracelsus was against or at least out of the official medicine and his ethics were considered an heresy, just like his doctrine. Within official medicine, deontological and ethical issues were developed only when medicine became newly organized, between the 16th and the18th century, mainly in England with the *Statutes* of the Royal College of Physicians (London). The major aim of their rules was to affirm the high role of the medical profession, not to be confused with ethics, as criticized by the the Scottish physician John Gregory in his work *On the duties and qualifications of a physician* (1769). Ethics is in fact directed to the profession, but also to the interest of the patient. This idea of Gregory will influence the future ethical codes and declarations on ethical conduct in medicine and bio-medical research, from Th. Percival to Nueremberg, Geneva, Helsinki, Tokyo and Lisbon declarations of our time (M. STRATLING).

In the new organization of medicine the hospital is not a temple of *hospitality* for sick persons, but the lay building of critical observation of the diseases. First of all for nosological purposes, then to combine the hippocratic praxis and the models of experimental medicine. The new medicine particularly in the 19th century discovered an anthropological view of life and death and the social connections between diseases and civil organization and economics (G. COSMACINI).

When medicine applies to research the rules of the natural sciences, a new *ethiopathogenetic view* is developed and new questions arise about the medical profession: the epistemological statute of medicine (from the Hippocratic *experience* to the *experiment*), as well as its social organization (from charity to social security) and the opposing *pressure* of new driving forces (e.g. the *benefits* of the new technologies versus the *cost* of new technologies) introduce medicine in this century between the extraordinary advancements beaten yearly by the awarding of the Nobel Prize for medicine and physiology and the problems aroused by these changes.

To be a physician in the 20th century (issue III - MdS I.1998)

The profession changed during the19th century also under the influence of public charity or social insurances (see for England J. OSBORN et al.) or for specific acts of reorganization adopted by Governments; for the confined diseases an example is reported of an american Leprosarium by J. PARASCANDOLA. But we need to remember again that the 20th century has been the age of big changes, due to new technologies (exploring human bodies, tissues, metabolism, cells, etc.) and methological applications of emerging fields to clinical practice (e.g. biochemistry, pathophysiology, biochemical pharmacology and finally molecular medicine). Two words entered the dictionary of the profession: *cost* (or cost/benefit ratio) and *bioethics*, the latter as whole ecology of human life (respect of the patient, respect for environment, etc.). In a world of managed care the patient's own value and assessment of benefits and the burden of medical acts is relevant (M. SIEGLER). In the Western world the social security systems became the general *third payers* between the citizen-patient and the providers-physicians, in both European countries and America (USA and Canada: see L. NESTMAN): the relationship between the sick person and the doctor is mediated by the State and/or Insurance Companies, the medicine is also a *market* and the profession discovers the need of a specific *bioethics* (D. CALLAHAN), in which the questions are: *What are the patient's goals? What does the patient want? Has the patient been provided sufficient information? Is the patient consenting voluntarily? Has the patient been coerced?*

What is the responsability of the physician in faced with the free *decision of the patient?* (M. SIEGLER, P. FRATI).

Deontological issues of the medical profession are consequently opened to bioethics, with a shift from a doctor-centered view to a patient-centered one, in balanced relationships, which may be called models of *beneficence, covenant, care*, etc., and are opposed to the pure cost/benefit model or *contractarian model* (P. CATTORINI and R. MORDACCI). Thus, the medical profession needs to accept the distinction between *deontology*, which states guide-lines for actions ascertainable and accountable (by both Medical Associations and Public Authorities) and *ethical conduct*, which is first judged by the patient (F. D'AGOSTINO): deontology and ethical conduct should reach a balance.

Our overview shows how the medical profession has changed throughout the ages: from the Hippocratic triangle (*physician-patient-disease*) of the first issue, to the relationship with science and the opening of the social aspects of the profession in the second issue. The last part pointed to the fact that today medicine is under the pressure of different driving forces: increased ageing, new technologies, additional costs, increased power of public administrators and, on the other hand, the request for an autonomous role by the citizen-patients: in this conflict were is the physician? Is he in the tower of his own self-determined role? It is without doubt that the autonomous role of the physicians (a practice *cum scientia et coscientia*) is decreasing without a new *alliance* with the citizen-patient, thereby centering the medical profession on a *equal* doctor-patient relationship in a health system of *managed* care. We cannot reverse the laws of economics, but we can construct a medical profession with high medical skills, including also human sciences wich is balanced between *market* and *solidarity*, between the efficientistic guide-lines of the *providers* (hospitals, physicians, etc.) and an *anthropocentric view* of the rights of the citizen-customers: the problem is that this new dimension of the medical profession is drawn mainly out of medicine, under the trials-sentences of leading cases (e.g. euthanasia, abortion, refusal of certain cu-

res, etc.) and discussions by experts of philosophy, theology and ethics, etc.; it is our impression that there is a delay on the part of official medicine, which has the secret dream of an unlikely return to the Hippocratic role of physicians [7]. So, today medicine need to accept the new dimension of the medical profession: the elaboration of an *inner* (i.e. in medical practice) epistemological view of the role of citizen-patient and his values into clinical acts is mandatory, which is the frontier of both the philosophy of medicine and clinical ethics [8].

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7. Many papers on this argument (Hippocrates, The Oath, the Hippocratic humoralism, etc.) have been published in the last years on JAMA, Brit. Med. J., Lancet, etc., at the cry *"come back to Hippocrates"*; actually, the question is the difference between that Hippocrates said and that we say he said! See: MARKETOS S.G., *The Hippocratic Oath.* Lancet 1996; 1: 101-102.
8. Special issues of scientific general journals are now dedicated to bioethics and managing health. See: SIEGLER M., *The contributions of clinical ethics to patient care.* Trends Exp. Clin. Medicine-Forum 1997; 7: 244-253.

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LES MÉDECINS DANS LA SOCIÉTÉ ÉGYPTIENNE À L'ÉPOQUE DES PHARAONS. MYTHE ET RÉALITÉ

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SUMMARY

PHYSICIANS IN THE PHARAONIC AGE'S EGYPTIAN SOCIETY

Egyptian tombstones and funerary stelae *dating to the Ancient Empire well testify the hierarchies existing in the Egyptian medical society. This article deals with both formal and practical aspects of the medical profession, and with the deeper meaning connected to the most interesting medical titles.*

Le nombre de titres ou de qualificatifs retrouvés dans les écrits de l'Égypte ancienne et désignant les médecins est assez important[1] pour nous permettre de proposer un classement hiérarchique des différents praticiens de l'époque[2]. Nous traiterons dans cette étude non seulement de l'organisation hiérarchique du corps médical (aspects formels), mais aussi du sens profond des titres les plus significatifs portés par les médecins ainsi que des conditions pratiques de l'exercice médical dans l'Égypte ancienne.

Les différents titres que portent les médecins apparaissent dans des documents assez divers. On ne les trouve guère dans les papyrus médicaux eux-mêmes et, quelques textes administratifs mis à part, ils sont principalement écrits sur les stèles funéraires et les parois des tombes. Ce sont les tombes et les stèles funéraires de l'Ancien Empire égyptien (3000-2200) qui permettent, par la richesse de la documentation fournie, d'étudier au mieux les subtilités hiérarchiques régissant le corps médical égyptien[3] où

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