Neuroethics - a new approach in neurological services"

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Ethical considerations are increasingly important both for the practice of medicine and for biomedical research. Dramatic advances in biology and medicine have given rise to concern about the ambivalent nature of many of these advances and there is widespread recognition of the new complexities and extensive ramifications of scientific progress. Experience with the technological revolution has taught that progress can present a bright or a dark side, depending on how it is used. The same is to be expected from the currently unfolding biological revolution and the application of its results to medicine. Measures are called for to ensure that progress in these fields will solely be applied for the benefit of present and future generations and that potential harm be minimised (1).

At the same time financial restraints have become a reality for most European countries. Hence a constant obligation to strive for justice in the use of available resources for health care. The struggle has quite a different appearance in the affluent societies of Europe compared to those countries of our continent where poor economic conditions prevail. In some countries an ageing population and state of the art - but costly - diagnostic and therapeutic services compound the situation, in others even some of the most basic health measures such as vaccinations are not guaranteed. This profound inequality in the availability of medical services creates an ethical dilemma of political dimension for Europe.

The present surge of increasing patient autonomy in some European countries is causing profound changes in the patient-doctor relationship. This is particularly obvious at both extremes of life, its beginning and its end. Medically assisted procreation with the new possibilities afforded by in vitro fertilisation and pre-implantation diagnostics and end of life decisions including medically assisted suicide and euthanasia are the most contentious examples; these beginning and end of life decisions call into question the traditional role of the physician and challenge the conventional interpretation of the time-1 medical tenets of beneficence and non-maleficence. Moreover to the extent that access to these medical procedures or practices is depending on private funding a strong element of inequality will be introduced into the European health care systems.

These developments can potentially cause division and conflicts, particularly in a continent of such diverse cultural heritage, traditions and languages like Europe. The „convention for the protection of human rights and dignity of the human being with regard to the application of biology and medicine: convention on human rights and biomedicine", adopted by the committee of ministers of the Council of Europe on November 19, 1996 (2), is an attempt to meet these challenges within the cultural setting of Europe. Its provisions rest on the concept of human dignity as laid down in the „European convention for the protection of human rights and fundamental freedoms of November 4, 1950; the convention on human rights and biomedicine is the first of this nature ever. Although initiated primarily by concerns about the recent radical scientific developments the convention's 14 chapters and 38 articles provide a framework covering all areas of medicine: stating the primacy of the human being and calling for equitable access to health care, it goes on dealing with consent, previously expressed wishes, private life and right to information, the human genome, predictive genetic tests, scientific research including research on embryos, organ- and tissue transplantation and the use and disposal of a part of the human body. The convention is rather a legal than an ethical document and lays down common general principles only (3); by providing minimal standards it leaves it up to the signatory state to enact specific legislation. However, after accession to the convention no signatory state is permitted to introduce rules that are less protective, but subsequent more protective rules are not prohibited. The convention is open for signature not only to the 40 member states of the Council of Europe but also by the non-member states which took part in its preparation (Australia, Canada, the Holy See, Japan, USA).

Additional protocols will address specific aspects of the following topics in more detail:
- Medical research on human beings
- Organ and tissue transplantation
- Protection of human embryo and foetus
- Human genetics

By stimulating public debate the convention intends to increase awareness in the hope of initiating a constant review process of all possible consequences of the rapid developments in the fields of biology and medicine.

The main aim of the convention is to serve as a general guideline of what to do in order to ensure that the beneficial side of progress in biology and medicine prevails. This implies

i) protection from any threat resulting from the improper use of scientific developments - at the level of the individual;
ii) protection of collective interests such as public safety and public health - at the level of society:
iii) protection concerning the application of advances in molecular biology and genetics - at the level of the human species.

The issues of the convention concern all medical fields. However, it is up to each medical speciality to address those aspects that are of particular relevance for itself. We suggest, in this context, to use the term „neuroethics" for the attempt to interpret and apply the principles of this convention for the field of neurology.

The tasks of neuroethics can be realised in several distinct areas such as ethics of research in neuroscience, neuroethics in clinical practice and education in neuroethics. Some of the most important ethical topics in neuroscience are drug research, research on medical products and devices, tissue transplantation, somatic gene therapy, predictive genetic tests and research into the mechanism of diseases and research in patients unable to consent.

Neuroethics in clinical practice will have to deal with resource allocation and end of life decisions such as palliative treatment of moribund patients and/or withholding or withdrawal of treatment or discontinuation of life support systems. Implantation of tissue or stimulating systems, brain death, genetic testing and counselling are further issues.

Education in neuroethics has to be offered at the undergraduate and postgraduate level and has to become part of continuing education

At the present time there is a strong movement towards international agreements, as exemplified for clinical drug research by the „ICH guideline for good clinical practice" (ICH = International Conference on Harmonisation). The objective of this agreement between EU, US and Japan is a unified ethical and scientific standard for clinical trials in order to facilitate mutual recognition of clinical trial data by regulatory authorities (4).

In general it will be up to each medical speciality to respond to these international developments by emulating its own set of ethical guidelines adapted to the specific conditions of their field. Disseminating and teaching the principles of ethics at all levels of medical education and training will be critical to be prepared appropriately for the increasingly complex ethical challenges of the future.

The neurological community should respond to these international developments and challenges by creating and supporting working-groups for neuroethics, by integrating relevant topics into the programmes of scientific meetings and by encouraging international contacts. The scope of debate and exchange of ideas should not be restricted to neurology but also reach out to other medical areas with overlapping interests.

Literature

1) Council of Europe, Committee of Ministers; „Explanatory report to the convention for the protection of human rights and dignity of the human being with regard to the application of biology and medicine: Convention on human rights and biomedicine";
Strasbourg, January 1997

2) Council of Europe, Directorate of Legal Affairs; „Convention for the protection of human rights and dignity of the human being with regard to the application of biology and medicine: Convention on human rights and biomedicine";
Strasbourg, November 1996

3) Maurice A.M. de Wachter: „The European Convention on Bioethics" ; Hastings Centre Report 27, no. 1 (1997):13-23

4) The European Agency for the Evaluation of Medicinal Products; Human Medicines Evaluation Unit: „Note for guidance on Good Clinical Practice (CPMP/ICH/135/95)";
ICH Harmonised Tripartite Guideline;
January 1997

INVITED LECTURES

Saturday, April 21st

NEUROETHICS

Franz Gerstenbrand, Vienna, **H. Baumgartner**: Neuroethics, a new approach in neurological service

MOVEMENT DISORDERS

Carlo Colosimo, Italy:	Parkinsonism: recognition and differential diagnosis
Dirk Dressler, Rostock:	Dystonic syndromes
Evžen Růžička, Prague:	Clinical review and history
Round table:	Current applications of Botulinum neurotoxin in neurology

Sunday, April 22nd

STROKE

Michael Brainin, Vienna, Maria Gugging:	Stroke units in Europe.
Gudrun Boysen, Copenhagen:	Secondary stroke prevention
Pavel Kalvach, Prague:	Pathogenesis of ischemic stroke, imaging possibilities
James Toole, Winston Salem:	Stroke management around the world - regional and temporal differences
Gudrun Boysen, Copenhagen:	Temperature, blood pressure and blood sugar in the first hours after stroke
Michael Brainin, Vienna, Maria Gugging:	Clinical epidemiology of stroke trials
Jaakko Tuomilehto, Helsinki:	What measures are evidenced-based in stroke prevention

Monday, April 23rd

EPILEPSY

Antonio Gil-Nagel, Madrid:	EEG: Indication and interpretation
Paul A.J.M. Boon, Gent:	Classification and differential diagnosis in epilepsy
Herman Stefan, Erlangen:	Presurgical evaluation of epileptic patiens

Ivan Rektor, Brno, **with all 3 guests**: Roud table with question from the audience

European Federation of Neurological Societies

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