

Getting mature in neurology – at the time of Charcot and nowadays

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Vienna, Austria

10th Congress of the European Federation of
Neurological Sciences
and
Meeting of European Association of Young
Neurologists and Trainees

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Immanuel Kant

Categorical Imperative:

I am never to act otherwise
than so that I could also
will that my maxim should
become universal law.



22.4.1724 – 12.2.1804
Königsberg (Russia)

Jean-Martin Charcot

- Professor in pathological anatomy
- Founder of the first clinic for Neurology worldwide at Salpêtrière - Paris
- First description of aphasia, ataxia, ALS, spastic spinalparalysis, MS, neurogene arthropathia
- Basic research in hysteria
- Honorary member of different scientific societies



1825 (Paris) – 1893 (Lac de Settons)

Case demonstration in Charcot's lectures "Lecons sur les maladies du système nerveuse", Salpêtrière – Paris, for physicians

- Patient as focus of interest
- Case presentation - sometimes using unorthodox methods (tremor examination in hanging position)
- Discussions for exchange of experiences
- Demonstration of hysterical features
- Demonstration of hypnosis as therapeutic experiment



Hysterical feature (hysterical stigma)

Demonstration of therapeutic methods



First photographic studies, atactic gait

Charcot's Open House "Soirées du mardi"

- Private meetings in his house for the high society in Paris
- Physicians, artists, politicians, ladies of the high society
- Presentations of scientific results - popular stile
- High social prestige



Diseases and definitions named by Charcot I

- **Charcot Disease / Morbus Charcot I:**
Amyotrophic lateralsklerosis
- **Charcot Disease / Morbus Charcot II:**
Multiple sclerosis, Charcot trias (intention tremor, scanning speech, nystagmus)
- **Charcot-Marie-Tooth:**
Peroneal muscular atrophy
- **Erb-Charcot Disease:**
Spastic spinal paralysis (primary syphilitic origin)
- **Charcot-Wilbrand-syndrome:**
Visual agnosia (loss for revisualisation)
- **Charcot dizziness:**
Syncope or vertigo

Diseases and definitions named by Charcot II

- **Charcot-Bouchard aneurysm:**
Small cerebral aneurysm (cause of intra-cerebral haemorrhage)
- **Charcot-Joffroy syndrome:**
Thrombophlebitis of meningoarachnoid veins (pachymeningitis)
- **Charcot points/zones:**
Pressure points, initiating hysterical crisis
- **Charcot joint:**
Neurogenic arthropathia
- **Charcot's syndrome:**
Claudicatio intermittens
- **Charcot intermittent hepatic fever:**
Intermittent pain, fever (jaundice)
- **Charcot Leyden crystals:**
Colorless, peaked octraedic crystals in sputum of asthma patients

Students of Jean-Martin Charcot

- Georges Gilles de la **Tourette** (neurologist)
- Pierre **Janet** (neurologist)
- Joseph **Babinski** (neurologist)
- Alfred **Binet** (neurologist)
- Pierre **Marie** (assistant and private secretary)
- Sigmund **Freud** (neuro-psychiatrist)
- Axel **Munthe** (physician and book author)

Theodor Meynert

- University professor for psychiatry, Vienna, 1870.
- Topology of the cerebral cortex.
- Research on neuro-anatomy and for function of the human brain.
- Research in pathological anatomy of the human brain as fundament in psychiatry and mental disorders.
- Founder of the modern neuro-pathology.



15.6.1833, Dresden (D) -
31.5.1892, Klosterneuburg (A)

Pierre Paul Broca

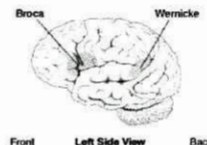
- Founding member of the Société d'Anthropologie de Paris (1859)
- 1868 Professor of clinical surgery
- Vice-President of the French Academy of Medicine
- Lifetime member of the French Senate



28.6.1824 Sainte-Foy-la-Grande - 9. Juli 1880, Paris

Pierre Paul Broca Major scientific work

- Comparative investigation in anatomy of the brain.
- Constructor of the "Craniometer"
- Comparative investigation of the Cro-Magnon- and Aurignac-man
- Broca-Index: weight relation to body size
- Description of the Limbic system and rhinencephalon.
- Description of motoric aphasia and its location, the Broca's area (Mr. Tan).



Julius Wagner von Jauregg

- Education in neuro-pathology and internal medicine.
- Scientific work in different chapters in neurology and psychiatry.
- Organization of a modern psychiatric clinic.
- Nobel prize laureate in psychiatry (1927): neurological project „Vaccinated malaria in treatment of the cerebral syphilis“.



7.3.1857, Wels (A) – 27.9.1940, Vienna (A)

Hans Hoff

- Director of the University Clinic for Psychiatry and Neurology, Vienna
- Last senior assistant of Wagner von Jauregg.
- Co-founder of topical based neurology.
- Humanization of the psychiatry, "open psychiatry".
- Introduction of neuro-imaging and electro-neurophysiology in clinical neurology.



11.12.1897 - 23.8.1969, Vienna (A)

J.-M. Charcot's merits in neurology Founder of clinical neurology

- Patient orientated in diagnosis and treatment
- Teaching based on practical demonstration and training
 - Bedside-teaching
- First department of clinical neurology worldwide

Topical based clinical neurology

- Jean-Martin Charcot: Founder of clinical neurology
- Theodor Meynert: Founder of neuro-pathology
- Pierre Paul Broca: First description of clinical deficits depending to a local brain lesion (Broca's aphasia = motoric aphasia)
- Julius Wagner von Jauregg: Topical orientated in special treatment
- Hans Hoff: Topical orientated treatment as guideline and state of the art

Basis of clinical neurology

- Charcot: "The best experimental subject is the sick patient."
 - Studying patients' history and symptoms
- The neuro-pathological background as topical basis for clinical neurology
 - Initiated by Meynert and Broca, completed by Wagner-Jauregg and Hoff.

Tendencies and changes in clinical neurology nowadays I

- Nowadays mixture: topical based neurology and phenomenological describing neurology
- Topical based neurology carried on neuro-imaging (structural und functional)
- Apparatus-based diagnosis using neuro-imaging, electro-neurophysiology, neuro-molecular techniques, neuro-genetics, etc.
- Influence of basic research results in neuroscience

Tendencies and changes in clinical neurology nowadays II

- Economization in patients treatment and care
- Obsolescence of ethical laws, Hippocratic Oath
- Patient changes from a subject to an object
- Patients problems in secondary position
- Loss of ethical ruled decision of responsible physicians (euthanasia)
- Miss-interpretation of symptoms and diagnostic findings and loss of empathy to the complains of a patient
- Diminished interest for patient's personal problems and their life circumstances
- Influence in end of life decision by medico-legal institutions (Apallic syndrome, ALS, end state of dementia, etc.)

Tendencies and changes in clinical neurology nowadays III

- Simplified terminology - ICD-10 (WHO-directed)
 - Dictated by health economy
 - Loss and lack of detailed described neurological entities and syndromes
- Sub-specialization with the tendency to loose the contact to other sub-specialized fields in neurology
- Danger of development to a splitted neurology
- Loss of synergy effects to clinical psychiatry (organic psychiatry)
- Forsake of peripheral fields in neurology like neuro-orthopedic, pediatric neurology, neuro-traumatology

Dangers for "getting mature" in modern neurology social aspects

- Loss of value of the human life
 - Continuous tendency of ageing (increasing part of the elderly)
 - Overpopulation
 - Emotional blunting in modern civilization
 - Globalization
- Changed spirit to ageing
- Loss of family coherence
- Too much influence on medical and non-medical institutions of health care organization
 - Acquisition of medical and health care institutions (hospitals, laboratories, rehabilitation centers, etc.)
 - Management by economical, not by medical principles
 - Over-influence of political decisions in medical issues

Dangers for "getting mature" in modern neurology medical aspects I

- Loss of time for examination of neurological patients, partly induced by economical reasons
- Loss of trust in physician-patient relationship
- Over-influence and dependency of apparatus-based medicine
- Lack in co-operation between acute neurology and neuro-rehabilitation
- Lack of organizations in untreatable neurological conditions (European Society for Amelioration of Quality of Life in Chronic Neurological Conditions)
- Regimentation for terminology (WHO/ICD-10)
- Regimentation by guidelines for diagnosis and treatment
- Dictate of Evidence Based Medicine (EBM) and different libraries for diagnosis and treatment

Dangers for "getting mature" in modern neurology medical aspects II

- Lack of time in education and continuous training (personal supervision, organized training courses)
- Lack of the role of teachers personalities
- Most Nobel laureates in neurology are coming from basic science
- Too much influence of basic research in clinical neurology
- Position of clinical neurology in the field of medicine, British education system is producing only consultants

Recommended corrections for future I

- Patient in center of physicians handling
- Patient's and physician's co-operation based on high ethical demand
- Patient's and physician's co-operation based of full trust
- Patient's and physician's co-operation based on open information, but with psychological sensitiveness
- Full information based on informed consent, necessary in the daily practice
- Full information regarding the patients unable to consent
- Notice of the special laws in clinical trials (ICH-GCP, Patient's Bill of Rights)

Recommended corrections for future II

- Special knowledge and capabilities in clinical neurology
- Practical experience in clinical neurology
- Target- and patient-orientated training programs
- Ideal behavior of the physician, especially neurologist
- Situation orientated person- and team-leadership
- Capability in team work
- Occupational knowledge in medical law



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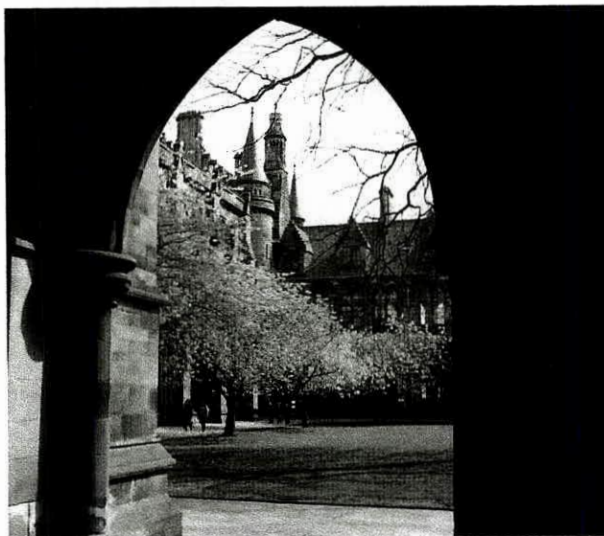
10th Congress of the European Federation
of Neurological Societies

YNT GENERAL ASSEMBLY

SUNDAY, SEPTEMBER 3 Hall J
15:30-17:00

Chairpersons: **Sabrina Sacconi**, France
 Adam Niezgoda, Poland
 Walter Struhal, Austria

1. President's report
Sabrina Sacconi, France – 15 min
2. Invited speaker:
Peripheral nervous system pathologies –
training and practice in Europe
Wolfgang Grisold, Austria – 20 min
3. Invited speaker:
Getting mature in medicine – especially in
neurology – from the time of Charcot
till today
Franz Gerstenbrand, Austria - 20 min
4. Treasurer's report
Walter Struhal, Austria - 15 min
5. Elections of new officers - 20 min



10th CONGRESS OF THE EUROPEAN FEDERATION OF NEUROLOGICAL SOCIETIES **EFNS 2006**



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FINAL PROGRAMME

www.efns.org/efns2006

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