

**This article is adopted from the original paper presented in "37th
International Danube Neurology Symposium" by Dr. Behnam
Mansouri as the title of "The letter from Iran"
5-8 October 2005 Ljubljana-Slovenia**

IRAN'S NEUROLOGY

Iran is an old country with at least 6-7 thousand years history of civilization. Iran is also famous to Persia which is derived from the word Pars . Pars is the name of civilization established in the area and is the basis of the country which is now called Iran.

It is said that the first Human rights constitution has been declared by Iranian king Cyrus . The area of the country is about 1.6 million squared km with 70 million population.

The number of neurologists is more than 550 persons and there is near 150 residents in all the country.

Training occurs in 8 major cities of Iran and 10 major universities (Tehran, the capital has 3 important medical universities and all of them have neurology training). Each hospital accepts 1-5 residents each year.

The number of neurologists is 150 in Tehran so the capital has 1/3- 1/4 of all neurologists of the country.

After the primitive above data, analysis should contain both positive and negative aspects to give a general schema of Iran's Neurology.

First I want to refer to the drawbacks;

1- Subspecialties:

I believe the most important problem of our neurology nowadays is the lack of subspecialty training program. One of major effects of mentioned changes that occurred in revolution period was more attention to treatment and weakening of education. In present situation we have 20 hospitals with neurology training courses all around the country but they are usually similar to each other with similar potentials and abilities because they are now responsible for major part of treatment in the country. The residents are involved in this matter too. So the education and the ideas for improvement of neurology and assigning neurologists and their energy to subspecialties has been really neglected. In our practice now we accept a lot of patients in our wards only for treatment but we also have another role as an academic advisor for residents and students on dealing with difficult and interesting cases which are referred to our hospitals. Therefore we are handling the bulk of treatment and education of neurology with minimum staff in each department and this matter inhibits the process of subspecialty development.

2- Research:

Research is another major problem. The number of papers both oral and poster presented by Iranian neurologists in the last European neurology congress in Austria was 5 and the number of published neurological articles in international journals is less

than it each year. Sometimes 1 or 2 or even nothing. It seems very bad but inside the country the situation is really different.

A lot of researches are done by students and residents for their thesis and by faculty members for their promotion and in addition to these formal researches, there are a lot of interested people who love to do researches without any financial or other demands. The main problem is that most of these researches are not able to pave their way to an international level of attention.

Discussion about the reasons may take time and needs a separate session. I want to say that fortunately at least 50% of all these enthusiastic people like to have their research in neurology and neuroscience.

3-Data gathering system:

Up to now, all our medical recording is based on paper and it actually doesn't work properly. The doctors usually get valuable experiences via the hard work and significant number of patients they visit but they are not able to turn the result of these activities into a reliable source of clinical trials and case reports.

4-High price of new procedures and drugs:

The coverage of insurance companies which are usually related to government is generally in a moderate level but in modern and new procedures the situation is worse. The high price of instruments in interventional and vascular neurology is one of the examples.

Interferons have another situation; a large part of their expense is paid by insurance system but the remaining part is even relatively high for our people.

5-Paraclinics:

How many MRI machines is in Tehran a city with 10 million populations? More than 40 and it is expanding each month. So you may be sure that there won't be a single brain tumor missed in Tehran. But among all these MRI machines no one does F MRI. The price of brain MRI is 50-70 Euros and with insurance system it reaches to 1/3 for the patients. Each day at least one thousand MRI are done in Tehran .This shows an over usage of some parts of paraclinics while some other parts are not effectively used.

6-Low prices of Medicine?

It is good or bad? It seems bad aspects eventually are more that benefits for both the medical system and society. The visit rate of a neurologist is 3-7 Euros in a private clinic and 2 Euro in governmental and university hospitals.

This leaves doctors in a situation where they have to work overly to make ends meet. Some times more than 12 hours a day and visit a lot of patients which may reach to more than 100 for some of the colleagues and this consumes a lot of energy and time and it is one of the other limitations for research and subspecialty development as well.

7-Lack of organized referral system:

It has its bad effect on epidemiological researches and makes us unable to have an exact estimation of prevalence of neurological disease in our country.

8- And the last, low scientific exchange and interaction with world:

Our access to internet and textbooks and journals is good but interaction with other neurology centers is weak.

Positive points:

1- Position of doctors in our society:

Medicine has been considered as a holy science in our culture and religion. Despite the growing rate of complaints against doctors and low income of them it is generally a highly respected job in Iran.

2- Very clever and talented students and residents. In Iran general medicine course and dentistry are usually the first to third choices of all students who are graduated from high school.

We have about 1.5 million graduates annually from high school and only 10% of them could go to university. The capacity of medicine and dentistry faculties is near 5000 each year, so you see how tough the competition is among the applicants.

In residency acceptance exam is another filtering and the chance of acceptance for residency is overall 10% . Neurology is one of the 5 top choices now.

It is obvious that this high filtering and hard competition result in a society with high potential and motivated group. Potentially regarding to this background our medical society could be play a better and more collaborative role in the international scene.

3- Iran is a good place for medical investments both financially and scientifically. Crowded clinics, lack of subspecialties, extended academic centers, clever and young staff sounds an appropriated place for this type of cooperation. For example interventional neurology could be one of the most interesting areas of such

investments. It could be quite lucrative and a lot of researches and experiences could also be achieved.

However most divisions of neurology could have such situation in the country.

4- A good place for expansion of scientific cooperation through the Middle East area, especially for large clinical trials.

As a final conclusion Iran has a huge potential for medical improvement involving in research, treatment and education.

Now we face every day with better applicants: Clever and enthusiastic and now neurology is getting a very respectful position among all other specialties. We hope to use all of this potential to improve our abilities and serve to all patients in every part of world.

Dr. Behnam Mansouri

Assistant professor of neurology

Shahid Beheshti Medical University

Tehran – Iran

Dr. Behrooz Ahsan

Assistant professor of neurology

Kordestan Medical University

Sanandaj– Iran

Curriculum Vita

Personal Background

Family Name: Mansouri
First Name: Behnam
Title: Medical Doctor
Date of Birth: 16 January , 1969
Place of birth: Tehran, Iran
Nationality: Iranian
Marital Status: Married
Gender: Male
Word Address: Emam Hossein Hospital,
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Educational and

Professional Background

2000-Present: Assistant Professor of Neurology, Shaheed Beheshti University of Medical Science and Health services, Tehran, Iran.

1998-2000: Assistant Professor of Neurology, Qazvin University of Medical Science and Health Services, Qazvin, Iran.

1994-1998: Residency of Neurology, Shaheed Beheshti University of Medical Science and Health Service, Tehran, Iran.

1992-1994: Work as a G.P. in the military service (obligatory Army period).

1985-1992: Under graduated program at the school of Medicine, Qazvin University of Medical Science and Health Service, Qazvin, Iran.

1985: Diploma, Kharazmi high School, Tehran, Iran.

Employment

2000-Present: Attending Neurologist, Emam Hossein Hospital, Tehran, Iran.

1999-2000: Head of Educational Development Center (EDC) Qazvin University of Medical Science and Health Service, Qazvin, Iran.

Research Activities

Present: Cognition ; Visual perception and effects of emotions on it's processing.

A survey of etiology and outcome of 101 cases of Intracerebral hemorrhage (ICH) in Boali Hospital of Qazvin, Iran.

The relation between students' sex and age and their evaluation of their lecturers.

Collaborator in design of an animal setting for stroke (in Rat).

Studying on NMDA receptor blockage with MK-801 and Ketamin and its beneficial effects on brain lesions.

Efficacy and failure of different types of Vasectomy on 518 cases. (M.D. thesis).

Traditional Iranian medicine and historical aspects;
Correlation with modern medicine.
(Others will be noticed in corresponding parts).

Papers presented at conferences.

1-"A survey on drug response in 22 admitted parkinsonian patients". The 4th International congress of Neurological disorders and clinical electro physiology, 3-5 September 1996, Tehran, Iran.

2- "Uremic Neuropathy, Mean toxin level theory". The 5th International congress of Neurological disorders and clinical electrophysiology, 15-19 June 1998, Tehran, Iran.

3-"How can electrodiagnostic tests used for quantification of KT/V index". The 9th Annual congress of internal medicine, 10-13 may 1998, Tehran, Iran.

4-"Physiological changes of Nervous system in Aging". Conference of Geriatric medicine, 6 December 1998, Qazvin, Iran.

5-"Diabethic Neuropathy" Conference of recent approaches to diabetes, 31 January 1999, Qazvin, Iran.

6-"Neurologic disorders in pregnancy" Conference of pregnancy and internal medicine, 23 February 1999, Qazvin, Iran.

7-"New drugs for seizure control in childhood" Conference of Seizure control in childhood, 14 March 2000, Qazvin, Iran.

**8-“ Possible effects of high power magnetic field on nerve conduction velocity “.The 6th international congress of Neurological disorders and clinical electrophysiology ,
29 may –1 jun 2001 Tehran,Iran.**

Articles

1-Uremic Neuropathy and analysis of electrophysiological changes (in two parts).

A-Clinical manifestations and electro diagnostic changes during a single dialysis.

B-The analysis of the relationship between changes in motor evoked potential amplitudes and KT/V index. (Original)

published in issue 41number 2/2001,(107-115)journal of "Electro-myography and clinical electrophysiology" (international EMG Journal).

2-The changes in the transmission functioning of the ulnar nerve in a high power magnetic field. (Original) published in issue 41number 5,2001(269-271). Electromyography and clinical electrophysiology (International EMG Journal).

Honors

1-Amongst 40 accepted students for Germany high school in Tehran,from
10.000 parcipiants 1979.

2-Amongst the top %3 of medical students studying for MD.1992

3-First rank in the residency examination (Among 30 participants).1994

4-First rank in Iranian National Board examination amongst the
participants from all Iran's medical Schools.1998

5-Founder of Educational developmental center in Qazvin
Medical
university,Qazvin ,Iran 1999- 2000

6-Founder of Computerizing attending evaluation scores in
Shahid Beheshti Medical university, Tehran,Iran 2001

Language

Farsi : Excellent

English : Excellent
Turkish : Good
Arabic : Good
Germany : Fair

Curriculum Vita

Personal Background

Family Name: Mansouri
First Name: Behnam
Title: Medical Doctor
Date of Birth: 16 January, 1969
Place of birth: Tehran, Iran
Nationality: Iranian
Marital Status: Married
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2000-Present: Assistant Professor of Neurology, Shaheed Beheshti University of Medical Science and Health services, Tehran, Iran.

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1992-1994: Work as a G.P. in the military service(obligatory Army period).

1985-1992: Under graduated program at the school of Medicine, Qazvin University of Medical Science and Health Service, Qazvin, Iran.

1985: Diploma, Kharazmi high School, Tehran, Iran.

Employment

2007-present:Cooperation as aid and observer one day each week in angiography room of Shahid Lavasani Hospital
supported bu Dr. Dehghan (Interventional cardiologist)

2007-present: Head of "Clinical research unit" in Imam Hussein Hospital related to Shahid Beheshti Medical University.

2006-present: Member of research center for Neuroscience and Cognition, Shahid Beheshti Medical University, Tehran, Iran.

2006-present: Deputy of research center for Neuroscience and Behavioral disorders, Imam Hussein Hospital, Tehran, Iran.

2005-present: Deputy of Imam Hussein Hospital, Tehran, Iran.

2000-Present: Attending Neurologist, Imam Hussein Hospital, Tehran, Iran.

1999-2000: Head of Educational Development Center (EDC) Qazvin University of Medical Science and Health Service, Qazvin, Iran.

Research Activities

Present: Incidental stenosis in MCA and internal carotid arteries.(Autopsy based)

Present: Role of environmental factors in MS etiology.

Present: Neuropathy induced by drugs using in chemotherapy.

Present: Cognition ; Visual perception and effects of emotions on it's processing.

A survey of etiology and outcome of 101 cases of Intracerebral hemorrhage (ICH) in Boali Hospital of Qazvin, Iran.

The relation between students' sex and age and their evaluation of their lecturers.

Collaborator in design of an animal setting for stroke (in Rat).

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- 3-"How can electro diagnostic tests used for quantification of KT/V index". The 9th Annual congress of internal medicine, 10-13 may 1998, Tehran, Iran.
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- 8-"Possible effects of high power magnetic field on nerve conduction velocity ".The 6th international congress of Neurological disorders and clinical electrophysiology , 29 may –1 June 2001 Tehran, Iran.
- 9-"Neurologic emergencies". The second Iranian emergency medicine congress , 14-16 August 2006, Tehran ,Iran.
- 10-" Acute treatment in ischemic stroke" Imam Hussein Hospital ,11 December 2006 ,Tehran ,Iran.
- 11- "The letter from Iran" 37th International Danube Symposium for Neurological Sciences and Continuing Education, 5-8 October 2005, Ljubljana–Slovenia
- 12-"Medical therapy in peripheral nerve injuries" First congress of Electro diagnostic medicine in peripheral nerve lesions, 9-10 Nov.2006, Tehran, Iran.
- 13-"Approach to Coma" Second emergency medicine meeting,16 August 2006,Tehran,Iran.
- 14-"The protective effect of Vitamin E on some electrodiagnostic changes in neuropathy of Paclitaxel in the prevention of cancer related polyneuropathy, Fourteenth International Iranian Congress of Neurology and Electrodiagnosis, 22-24 May 2007, Tehran, Iran.
- 15- "Report of EFQM model experience in Imam Hussein Hospital" First international conference of the ways of improvement in health system ,21-22 November 2007 ,Tehran ,Iran.

Articles

1-Uremic Neuropathy and analysis of electrophysiological changes (in two parts).

A-Clinical manifestations and electro diagnostic changes during a single dialysis.

B-The analysis of the relationship between changes in motor evoked potential amplitudes and KT/V index. (Original)

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2-The changes in the transmission functioning of the ulnar nerve in a high power magnetic field. (Original) published in issue 41 number 5,2001(269-271). Electromyography and clinical

electrophysiology (International EMG Journal).

3- Neuroprotective effect of Vitamin E supplementation in patients treated with Paclitaxel-Base chemotherapy. Pajouhandeh ISSN:1735-1022, Vol 11, No2(50). Jun & July 2006.

4- Neurology in Iran. Iranian journal of neurology, Volume 5 Number 13 spring 2005

5- A comparison of aspirin and warfarin following strokes in posterior circulation. Iranian journal of neurology, Volume 5 Number 15-16 Fall & Winter 2005-6 ,19-24.

TV and Radio programs

Two live programs in News channel ; Medical updates program about acute treatment of stroke, spring 2006 ,Tehran, Iran.

Alzheimer ,recorded in 2006 showed 22/11/2007 in scientific channel (channel 4)

Honors

1-Amongst 40 accepted students for Germany high school in Tehran, from 10.000 participants 1979.

2-Amongst the top %3 of medical students studying for MD.1992

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6-Proposal of Computerizing attending evaluation scores in Shahid Beheshti Medical university, Tehran, Iran 2001.

7-One of three members founding research center of Neuroscience and Cognition ,related to Shahid Beheshti Medical university, Tehran, Iran 2006.

8-One of five members founding research center of Neuroscience and Behavioral Disorder ,related to Shahid Beheshti Medical university in Imam Hussein Hospital, Tehran, Iran 2006.

9-Founder of "Clinical research unit" in Imam Hussein Hospital related to Shahid Beheshti Medical University.

10-Founder of Iranian Migraine and Headache Society, 2006,Tehran,Iran.

11-Founder of skill lab and physicians' rest room in Imam Hussein Hospital,2006 ,Tehran, Iran.

Language

Farsi : Excellent
English : Excellent
Turkish : Good
Arabic : Good
Germany : Fair

Hobbies

Sport
Trip and tourism
Reading (especially poems, social and political fields)

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سوابق تحصیلی :

۱۳۶۴-۱۳۷۱ پزشکی عمومی - دانشگاه علوم پزشکی قزوین
۱۳۷۱-۱۳۷۳ دوران سربازی
۱۳۷۳-۱۳۷۷ تخصص مغز و اعصاب - دانشگاه علوم پزشکی شهید بهشتی
۱۳۸۱ دو ماه دوره TMS در انگلستان

سوابق آموزشی :

۱۳۷۷-۱۳۷۹ : استادیار دانشگاه علوم پزشکی قزوین
۱۳۷۹ تا کنون استادیار دانشگاه علوم پزشکی شهید بهشتی

سوابق اجرایی :

۱۳۷۶-۱۳۷۷ نماینده چیف رزیدنتهای بیمارستان شهدا تجریش
۱۳۷۸-۱۳۷۹ رئیس دفتر توسعه آموزش دانشگاه علوم پزشکی قزوین
۱۳۸۰-۱۳۸۱ عضو گروه ارزشیابی دفتر توسعه آموزش دانشگاه علوم پزشکی شهید بهشتی
۱۳۸۱-۱۳۸۲ رئیس درمانگاه سرپائی بیمارستان امام حسین (ع)
۱۳۸۲ تا کنون بنیانگذار پارس کلینیک شامل کلینیک تخصصی مغز و اعصاب و روان و پولی کلینیک تخصصی و فوق تخصصی مشتمل بر همه رشته های پزشکی
۱۳۸۲ بنیانگذار آزمایشگاه تحقیقاتی بیمارستان امام حسین (ع) با گرایش تحقیقات روی حیوانات (animal lab)
۱۳۸۴ تاکنون معاون آموزشی بیمارستان امام حسین (ع)

سوابق پژوهشی :

- همکاری با دانشگاه تربیت مدرس برای Set کردن انجام آزمایشات با میدان قوی مغناطیسی و بدست آوردن ثبت برانگیخته حرکتی (MEP) برای اولین بار در ایران
- بررسی اثرات داروهای مهارکننده کانال کلسیم در جلوگیری از بروز نوروپاتی اورمیک
- بررسی و معرفی یک بیمار نادر با Pure word deafness
- بررسی تغییرات H-Reflex در بیماران با تالاموتومی و DBS
- بررسی اثرات هیجانانگیز بر شناسایی چهره های انسان در زمانهای کوتاه
- بررسی اثرات مهارکننده های NMDA بر شدت آسیب در Rat
- بررسی علل و پیش آگهی ۱۰۱ بیمار دارای خونریزی مغزی در قزوین (بیمار بوعلی ۱۳۷۸)
- بررسی سودمندی و درصد شکست در ۵۱۸ مورد و ازکتومی (پایان نامه دکتر)
- طب سنتی ایران و مقایسه با مفاهیم مدرن

سخنرانی ها :

- ۱- مطالعه در مورد پاسخ به درمان بیماران پارکینونی (۲۲ مورد)
چهارمین کنگره بین المللی بیماریهای نورولوژیک و الکتروفیزیولوژی بالینی شهریور ۱۳۷۵
- ۲- نوروپاتی اورمیک و تئوری ((Mean toxialevel))
پنجمین کنگره بین المللی بیماریهای نورولوژیک و الکتروفیزیولوژی بالینی خرداد ۱۳۷۷
- ۳- کمی کردن KT/V با آزمونهای الکتروفیزیولوژی
نهمین کنگره سالانه بیماریهای داخلی خرداد ۱۳۷۷
- ۴- تغییرات فیزیولوژی سیستم عصبی با افزایش سن
کنفرانس طب سالمندان آبان ۱۳۷۷
- ۵- نوروپاتی دیابتی
دی ۱۳۷۷ - کنفرانس تازه های دیابت
- ۶- بیماریهای نورولوژیک در حاملگی
بهمن ۱۳۷۷ کنفرانس حاملگی و بیماریهای داخلی
- ۷- جدیدترین داروهای ضد اپی لپس در کودکان
کنفرانس کنترل تشنج در کودکی اسفند ۱۳۷۸
- ۸- اثرات میدان قوی مغناطیسی بر الکتروفیزیولوژی سرعت هدایت عصبی
ششمین کنگره نورولوژی و الکتروفیزیولوژی بالینی خرداد ۱۳۸۰
- ۹- معرفی MEP به جامعه نورولوژی
نهمین کنگره بین المللی نورولوژی و الکتروفیزیولوژی بالینی خرداد ۱۳۸۱
- ۱۰- بازنگری قوانین حاکم بر حرکت چشمها خصوصاً نگاه عمودی و ارائه هیپوتز
دهمین کنگره بین المللی نورولوژی و الکتروفیزیولوژی بالینی خرداد ۱۳۸۲
- ۱۱- معرفی نرم افزار طراحی شده برای جمع آوری اطلاعات در بخشهای نورولوژی

یازدهمین کنگره بین المللی نورولوژی و الکتروفیزیولوژی بالینی اردیبهشت و خرداد ۱۳۸۳

مقالات خارجی :

- Clinical Manifestation and electro diagnostic changes during a single dialysis.
- The analysis of the relation ship between changes in motor evoked potentials amplitude and KT/V index (Original).

-Issue 41 number 2/2001 (107-115)

Journal of ((Electromyography and clinical electro physiology)) in tow parts .

-The changes in the transmission Functioning of the ulnar nerve in a high power magnetic field (Original).

-Issue 41 number 5/2001 (269-271)

Journal of ((Electromyography and clinical electro physiology)) .

Honors

- ۱- پذیرفته شدن در آزمون ورودی مدرسه آلمانیها از میان حدود ۱۰/۰۰۰ داوطلب ۱۳۵۶
- ۲- جزو سه درصد اول فارغ التحصیلان پزشکی دانشگاه علوم پزشکی قزوین (ورودیهای ۱۳۶۴) ۱۳۷۱
- ۳- نفر اول آزمون ورودی تخصص ۱۳۷۳
- ۴- نفر اول بورد تخصصی بیماریهای مغز و اعصاب (نورولوژی) ۱۳۷۷
- ۵- احداث آزمایشگاه تحقیقاتی بیمارستان امام حسین(ع)
- ۶- طراح برنامه نرم افزاری ثبت اطلاعات بیماران بستری در بخش نورولوژی
- ۷- برنده جایزه ۱۰۰۰ دلاری محققین جوان کنگره نورومانیس سئول (کره جنوبی)
- ۸- بنیانگذار مجموعه پارس کلینیک شامل پولی کلینیک تخصصی و فوق تخصصی و مرکز جامع مغز و اعصاب و روان در غرب تهران
- ۹- استاد مشاور و راهنما در یازده پایان نامه دانشجویی یا رزیدنتی

