

9- A history of surgical pediatrics: R. Carachi- Dan G. Young-
Cenk Buyukunal: world scientific 2009, pp:135- 225- 381- 481 521
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History of Paediatric surgery in Iran

Jean-Jacques Rousseau, the philosopher and moralist, commented in the mid-18th century, “*One half of children born, die before their eight years. That’s the nature’s law, why try to contradict it?*”

Paediatrics, as a scientific treatment for sick children, was first practiced in the eighteenth century in Europe and decades later in America and other parts of the world. Therefore, it is not comparable to the vast history of general medicine. It is most probable that medicine found its way into people’s lives when they started to live as communities.

In the 6th century BC, Darius I founded Medes as the first Persian kingdom followed by Achaemenid, Seleucid, Parthian and Sassanid empires. It is likely that medicine was of a great status in the Achaemenid Empire. Zoroastrian clerics or physicians treated the patients according to Avesta. This dynasty collapsed after the attack of Alexander the Great, Persepolis was destroyed and looted and medical documents were burned. Successors of Alexander

founded the Seleucid kingdom in Iran while Ptolemy reigned in Alexandria. Medicine in the Seleucid, Parthian and Sassanid periods continued to develop. It was inspired by the old medicine of Mesopotamia (Assyria – Babylonia, the Achaemenid Empire), Greek (Alexandria) and India. The establishment of Jundi-Shapur university in the middle of the 4th century AD was one of the biggest medical events in Sassanid era. In addition to philosophy, medicine was taught in this university and in fact, it was one of the biggest medical centres at that time which had trained many physicians for Iran and the countries around. This medical school was of a great importance before the appearance of Islam and afterwards through the 9th century AD.

Some of the physicians like Al Bukhtishu who practiced medicine for generations, were all graduates of this university. There were four large medical schools before the rise of Islam and their successors continued to practice in the next centuries in the schools such as scientific centre of Alexandria (practicing Greek medicine in Egypt), Sham scientific centre and northern parts of Mesopotamia, Jundi-Shapur scientific centre and scientific and

medical centres in India. Thus, before Islam, medicine in Iran was under the influence of scientific and medical centres of Assyrians, Babylonians, Zoroastrians, Jews, Greeks, Nestorians, Alexandria and India.

Following the Arab invasion and fall of the Sassanian dynasty, Iran was added to the Islamic territory, therefore writers and authors were forced to publish their books in Arabic as the scientific language of its time (similar to Latin in medieval Europe) and thus the great Islamic civilisation emerged and flourished. Some of the Islamic historians and writers have incorrectly referred to the Islamic medicine as Arabic medicine, considering that, most of the scholars at that time were none-Arab people, particularly Iranians. The late professor Edward Brown has called it Islamic medicine in the beginning of his book, called Arab Medicine, but we have to pay tribute to all the other nations and tribes other than Iranians, Nestorians and Sabians. Arabs played a minor role in this issue. When talking about Islamic medicine, Arabian and or Islamic sciences, we are in fact, addressing the doctrines of the great Islamic scientists in eastern and western parts (Spain) of the

Islamic world that were recorded in Arabic. Since Abbasid caliphate, the scientific centres gradually moved from Iran to Baghdad and the great Iranian, Indian, Jewish, Christian and Syriac physicians and scientists were invited there. They began to treat the caliphs and courtier as well as translating Greek, Syriac, Pahlavi, and Indian works into Arabic (The era of translating scientific books).

Medicine in Iran was flourished from the 10th century AD and there were scholars with global reputation such as Ali ibn Rabban Tabari, Zakariya Razi, Ahvazi, and the well known physician and philosopher, Avicenna. With the attack of Mongols, many of Iranian medical documents were burned. From the ashes of this attack, Buyid dynasty and Safavieh medicine developed based on Razi and Avicenna. Meanwhile western countries began to establish new universities and major reforms were made to the different sciences including medicine. In Safavieh, Afsharieh and Zandieh era western physicians came to Iran, but old medicine was still being practiced until the mid Qajar reign. In 1811 Abbas Mirza Qajar's viceroy

and after him, Mohammad Shah Qajar sent students to Europe in order to acquire new knowledge and in return they were mostly at the service of the courtier. In ۱۸۵۰, Mirza Taghi Khan Amir Kabir the great Iranian chancellor ordered to establish Dār al-fonun in European style schools somewhere in the Tehran Royal Citadel. There, European and Iranian teachers began to teach modern sciences. In ۱۸۵۲, and ۵ days after the eviction of Amir Kabir, Dr Polak came to Iran to teach modern medicine (internal & surgical) to the students with the help of European educated Iranians. Therefore, modern medicine found its way to Iran with the efforts of Dr Cloquet, Dr Polak and the help of Iranians. In ۱۸۸۱ first public hospital (later called Sina Hospital) was opened in Tehran under the consent of Nasser al-din Shah Qajar with the presidency of Nāzem al atteba. In ۱۹۳۴ Tehran University was opened in Jalalieh (current location of Tehran University) to educate the students in the different fields. Since then, the modern medicine began to develop in the country. From ۱۹۲۸ students were sent to Europe to train in medicine and other fields. A total of ۶۴۰ scholarships were given by the government from ۱۹۲۸ to ۱۹۳۵

while some funded their own education abroad like professor Adl. From ۱۹۴۰s, medical faculties were gradually opened in other large cities like Tabriz, Isfahan, Shiraz, Mashhad, and Ahvaz to educate physicians for the country. Old medicine was substituted by modern western medicine thereafter.

Modern medicine has a history of less than ۲۰۰ years in Iran and paediatric surgery has a lesser history compared to it. This article aims to shed light on when paediatric surgery was established and how it reached to its current state. Like similar cases we have little documents in hand, but I, as a person who has observed the formation of parts of this branch, have tried to collect and record the existing documents as much as possible. The following contents are a result of my interviews with the pioneers of paediatric surgery, colleagues, my own knowledge and observations*. Please note

that the main purpose of this paper is to pay a tribute to the scholars who have remained in Iran after finishing their education in the international scientific centres, founded paediatric surgery

*- There are no written document in hand. Hopefully all people mentioned above are living now and been interviewed .

departments in different universities, upgraded it to an academic practice and trained many specialists. There are also a lot of people who have engaged in paediatric surgery and serving the sick children in Iran but they have not contributed towards the formation and continuation of paediatric surgery.

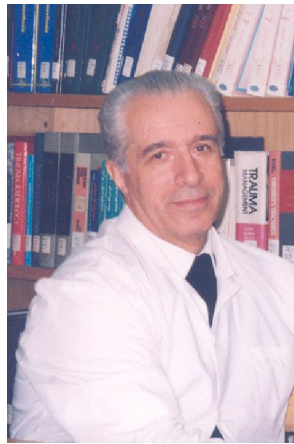
The history of paediatric surgery in Iran can be divided into three periods including before, during and after ۱۹۷۰s. Paediatric surgery did not officially exist before ۱۹۷۰ (excluding one unit that was active with a general surgeon) and sick children with congenital and acquired diseases were operated on by general surgeons (in most cases without considering the principals of paediatric surgery) and little is known about the quality of these surgeries. Dr Sadreddin Nabavi, one of the students of the late professor Yahya Adl (One of the founders of modern surgery in Iran), spent two year in Paris working in professor Ombredanne department. After returning to Iran in ۱۹۶۷, he began to practice in Sina hospital affiliated to Tehran Medical University. He was the author of the Acute Abdomen in Paediatric Surgery (He was no longer employed in Sina hospital where I was undertaking my

residency in ۱۹۷۰). Dr Rahim Dehghan who had spent some time in America with professor Swenson began to operate on sick children first in Shiraz (Saadi & Namazi hospitals) and later in Tehran. It is also notable that before ۱۹۷۱, there used to be an independent paediatric surgery unit in Shahr Azad hospital (currently known as Ali Asghar Children's Hospital) and Dr Zomoroddi, a general surgeon, undertook the paediatric surgeries. It is probable that there have been surgeons in the other provinces like Azerbaijan (Tabriz), Isfahan or Khorasan (Mashhad) who were practicing paediatric surgery due to their personal interests. Although I could not collect much information regarding this issue, but I believe that they did not play a major role in paediatric surgery.

In ۱۹۷۰s, some of the surgeons who had trained in paediatric surgery in Germany, Switzerland, England, France, Canada and or United States of America, gradually returned to Iran and began to work individually or together in Tehran or other provinces. These surgeons first started working in general surgery units and later established units which were purely dedicated to paediatric

surgery. Therefore, in ۱۹۷۰s for the first time in Iran some of the children were systematically operated on by surgeons familiar with paediatric medicine and surgery. Shortly after Islamic Revolution a number of these surgeons left the country, but many remained and their fortitude lead to development, continuation and cohesion of paediatric surgery in Iran. In the early years of ۱۹۷۰s, Dr Kaviani and Dr Piramoun Moghaddam both educated in USA and later Dr Kheradpeer who was a swiss trained surgeon, founded the paediatric surgery unit in Children's Medical Centre and each of these prominent three surgeons began to practice in different fields depending on their interest. Dr Mohammad Hassan Kheradpeer who was still working in Children's Medical Centre after the revolution, was most interested in paediatric urology and he has recently been retired. Paediatric surgery unit of the Children's Medical Centre has made great contributions towards the medical and educational fields of paediatric surgery. The paediatric surgery unit of this centre (affiliated to University of Tehran) was stricken with a period of declination in educational activities, but since the second part of ۱۹۸۰s it has resumed its position. In the early ۱۹۷۰s

Dr Valliollah Mehrabi after studying general medicine in Turkey and general and paediatric surgery in Germany and America came to Iran. He accepted an appointment in Sina Hospital and later in Bahrami Children's Hospital affiliated to University of Tehran. From ۱۹۷۴, he gradually established an independent paediatric surgical unit with the help of Professor Azizi, who was the medical director of the hospital at that time.



Professor Valliollah Mehrabi

Bahrami Hospital has a long history regarding treatment and training of medical diseases and paediatric surgery. It has been responsible for this duty from late ۱۹۵۰s and early ۱۹۶۰s and is still continuing with this task.

Dr Manouchehr Amirfaiz and later Dr Keyvan Rafi'eian came to Iran from Germany and were appointed paediatric surgeons in Loghman Hospital.



Professor Keivan Rafi'eian

Dr Amirfaiz established a paediatric surgery unit in that hospital which later transferred to Taleghani Hospital affiliated to Shahid Beheshti University after the Islamic revolution, and Dr Rafi'eian was appointed paediatric surgeon in chief in Mofid hospital . The paediatric surgery unit of the Taleghani Hospital was then closed down and it moved to Mofid Hospital in ۲۰۰۷ which now has two paediatric surgery units. In the early ۱۹۷۰s, Dr Abbas Khalessi returned to Iran after studying paediatric surgery in Canada and was appointed as a paediatric surgeon in Shahr Azad Hospital in Zafar street. He started working with only a few rooms and then in an independent unit dedicated to paediatric surgery.

Also, after the revolution, he continued serving the children by attracting other colleagues. He is one of the pioneers in the field of paediatric surgery who has had a great influence in the formation of this new field in the Ali Ashghar Hospital. At the same time in Mofid Hospital, a paediatric surgical unit was opened and Dr Ali, a paediatric surgeon from Pakistan took the position. Later Dr Hossein Shafa'ee, who was appointed general surgeon in this unit, started to undertake the studies involving paediatric surgery and acquired his speciality in this field. Again in the early ۱۹۷۰s, Dr Movasseghi and the Late Dr Farrokh Mehdi Nejad who had passed some courses in western countries, were performing paediatric surgery in Tehran. Dr Movasseghi has also published a book in the field of paediatric surgery. The Late Dr Farrokh Mehdi nejad, who studied paediatric surgery in Necker-Enfants Malades Hospital in paris, worked at Melli Bank Hospital and until recently at the Mofid Hospital. In ۱۹۷۳, there was a paediatric surgery unit in Tabriz Farmanfarma'eian Hospital (currently known as Children's Hospital) affiliated to Tabriz University which general surgeon of that time, Dr Sharibanloo was in charge of and later Dr Firooz

Ghare beigloo who had trained paediatric surgery in England, joined him as the surgeon in chief.



Professor Firooz Ghare beigloo

Dr Aslanabadi has been the head surgeon in this approved unit from the year ۲۰۰۰. Dr Karim Vaez zadeh returned to Shiraz in the early years of ۱۹۷۰s, after educating paediatric surgery in Pittsburg with Dr Keiewetter.



Professor Karim Vaez zadeh

In ۱۹۷۵, he founded an independent paediatric surgery unit in Namazi Hospital affiliated to Shiraz University and appointed there as the chief surgeon. Dr Gerami who also worked in the same

unit was a paediatric surgeon (he left Iran after the Islamic revolution).

Towards the end of ۱۹۸۰s, Dr Vaez zadeh went back to the adult surgical ward after being approved and Dr Abbass Banani was appointed chief surgeon in the paediatric surgery unit. Dr Farrokh Sa'eedi who had practiced paediatric surgery in USA with Dr Hendren, began to practice paediatric surgery in Shiraz and later in Tehran. Dr Manouchehr Davaee a western trained surgeon was also working in Ahvaz University in the field of both adult and paediatric surgery during the same years. Dr Ali Sepehri was doing paediatric surgery in Mashhad. Dr Seyyed Mahmood Mousavi who was a German trained surgeon was practicing paediatric surgery in Yazd from ۱۹۸۰s.

Until the Islamic revolution, paediatric surgery was not officially recognised as a speciality and paediatric surgery units were operational due to the effort of the veterans in this field. Under the exceptional stimulus and fortitude of Dr Valiollah Mehrabi who had unofficially begun to train paediatric surgery in Bahrami Hospital after choosing Dr Ali Reza Mirshemirani in ۱۹۷۷, the

authorities of Ministry of sciences were convinced to recognise it as a speciality in ۱۹۸۰. According to this agreement, each trainee after completing three years of paediatric surgery training, participates in written, oral, and practical examinations in order to qualify. Different paediatric surgery units were gradually evaluated and approved and first group of fellowships including Dr Hossein Yazdani, Dr Ja'far Kouranloo, Dr Ahmad Sadighi and Dr Javad Ahmadi began their fellowship in Bahrami, Amir Kabir, Children's Medical Centre, and Taleghani hospitals. In ۱۹۸۳ Dr Hossein yazdani could pass the exit exams and began to work as the first official graduate of paediatric surgery in Iran. The board of paediatric surgeons was born in ۱۹۸۲ and it is in its ۲۴ years now. Thus, I believe that, Dr Valiollah Mehrabi is in fact the founder of academic paediatric surgery in Iran. He is still active after retirement in ۲۰۰۷ and paediatric surgeons trained by him are working in different parts of Iran. He is also the author of two books, The Book of Paediatric Surgery, and The Great Collection of Illustrated World Medical History (from ancient times to contemporary era).

Along with Amir Kabir Centre, in Taleghani Hospital and Mofid Hospital affiliated to Shahid Beheshti University with the effort of Dr Amirfeiz, Dr Rafeeian, Dr Mirshemirani, Dr Shafaei, and Dr Mehdi Nejad, fellowships of the paediatric surgery were registered. These skilled paediatric surgeons are still working all over the country. With the increase in number of paediatric surgeons from Taleghani, Amir Kabir, Bahrami, Mofid, Shiraz and Isfahan hospitals and also Children's medical Centre, paediatric surgery units were developed in Tehran and other cities with enough qualified paediatric surgeons*.

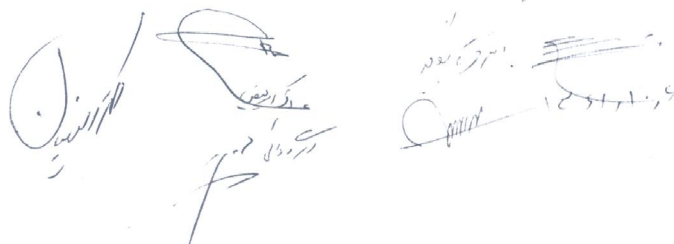
Primary attempts for establishing Iranian Society of Paediatric Surgeons was done by Dr Valiollah Mehrabi and others in ۱۹۸۲ and it was unofficially formed as a private society under presidency of Dr Valiollah Mehrabi and his colleagues.

*- Amir Kabir Hospital located in North Kargar Avenue was closed down forever after ۱۷ years in ۱۹۹۸.

"بنام خدا"

در تاریخ ۱۳۶۱/۱۰/۶ با حضور آقایان دکتر منوچهر امیرفایز - دکتر منوچهر دوانقی -
دکتر فریورز تره بگلور - دکتر کیوان رفیعیان و دکتر ولی اله محرابی در بیمارستان امیرکبیر
جلسه ای جهت تشکیل انجمن جراحان کودکان ایران تشکیل گردید که اساسنامه مورد مطالعه
قرار گرفت و با آن مورد قبول واقع شد و شرح زیر تصمیمات گرفته شد و افراد ذیل انتخاب
شدند *

- ۱- رئیس انجمن دکتر ولی اله محرابی از دانشگاه تهران
- ۲- نایب رئیس اول دکتر منوچهر امیرفایز از دانشگاه ملی ایران
- ۳- نایب رئیس دوم دکتر منوچهر دوانقی از دانشگاه اموال (چندی شاپور)
- ۴- دبیر دکتر کیوان رفیعیان از دانشگاه ملی ایران
- ۵- خزانه دار دکتر فریورز تره بگلور از دانشگاه تهران



It was reborn in ۱۹۹۳ under the stimulus of Dr Manouchehr Amirfaiz and the help of Dr Karim Vaez zadeh, Dr Abbass Khalesi and Dr Javad Ahmadi and was activated under consent of Interior Ministry of Iran.



Professor Manouchehr Amirfaiz

We must appreciate their efforts especially that of Dr Amirfaiz. After establishment, its first general assembly was held and board of directors were elected and Dr Amirfaiz became the president of

Iranian Society of Paediatric Surgeons. In parallel with Iranian Association of General Surgeons, it is not only organising periodical and annual congresses, but also holds a monthly conference on the first Thursday of each month (It has recently held the ۱۹th annual paediatric surgery congress in Tehran). In the meantime, approximately ۸۰ paediatric surgeons are practicing all over the country.

Iranian Society of Paediatric Surgeons is actively engaged in coordinating the practitioners of the field.. This society has also gained membership in World Federation of *Paediatric Surgeons* and *Asian Association of paediatric Surgeons*.

Today, paediatric surgeons are not only involved with children problems, but are also active in the field of research and education. Many of them are frequently giving speeches or attend international congresses. Nowadays members of paediatrics surgery subspecialty board which consist of ten members of the Society of Paediatric Surgery, and the academic staff of the universities from all over the country, are active in the Ministry of Health and Medical Education.

Following the recognition of paediatric surgery and graduation of the first group of paediatric surgeons in Iran (۱۹۸۲),

۲۴ examination boards have been held in the form of written, oral, and practical (surgery in operating room) and about

۷۰ surgeons have passed these tests successfully. Paediatric surgery has had a dramatically growth in Iran and almost all

paediatric surgeries are performed to the highest quality and we are looking forward to further progresses with the

support of the official authorities.

As mentioned above, paediatric surgery was not recognised in Iran until ۱۹۷۰ and many children who suffered from congenital disorders or other types of illnesses such as esophageal atresia, Hirschsprung's disease, imperforate anus, jejunoileal atresia, congenital diaphragmatic hernia, abnormalities of the genitourinary system in conjoined twins and etc, either passed away or were treated incorrectly. Nowadays, the children who suffer from the same problems are treated with high rates of survival. Paediatric surgery has acquired a special position among the country's scientific and medical centres, and paediatric surgeons in Tehran and other cities, have relatively good facilities which allow them to continue treating children in the same level as

developed countries, and are well known in national and international scientific associations.

Currently, there are many approved educational units of paediatric surgery in the medical sciences universities of Iran, Tehran, Shahid Beheshti, Isfahan (with the efforts of Dr Mahmood Ashrafi), Tabriz (with the efforts of Dr Gharehbeiglou), Shiraz and Mashhad (with the efforts of Drs Fathollah Roshanzamir and Mehran Hiradfar), and also cities of Sari (with the efforts of Dr Alam), Gorgan (with the efforts of Dr Mohammadi Pour), Babol, Rasht (with the efforts of Drs Izadi and Pirouz), Ghazvin (with the efforts of Dr Tarlan), Zanjan (with the efforts of Dr Diana Diaz), uroumieh, Kerman, Rafsanjan, Yazd, Fasa, Hamedan, Kermanshah, and Ahvaz (with the efforts of Drs Ostadian, Asgarpour and Peyvasteh). In Karaj and Zahedan there are either established paediatric surgery units or paediatric surgeons are working there. The paediatric surgery unit in Isfahan was opened in ۱۹۸۵ with appointment of Dr Ashrafi and with only one room in Amin Hospital. It was then expanded and turned into a ۳۶ bed unit with NICU and ۴ operating rooms. This unit was approved in

۱۹۹۰ by the evaluation department of the Ministry of Health and Medical Education, and in ۱۹۹۳ it moved to Al Zahra Hospital which is affiliated to Isfahan University of Medical Sciences. Currently, six surgeons including Dr Ashrafi are working there. In July ۱۹۹۵, Dr Fathollah Roshanzamir appointed to general surgery unit of Imam Reza Hospital in Mashhad after graduating from Shahid Beheshti University in paediatric surgery. He then established a paediatric surgery unit in Mashhad's Dr Sheikh Children's Hospital. It is one of the most equipped paediatric surgery units in the country and is currently active under the management of Dr Mehran Hiradfar with collaboration of Dr Ahmad Bazrafshan and other colleagues.



conjoined twins from Isfahan University of Medical Sciences



conjoined twins from Isfahan University of Medical Sciences

after separation by Dr Valiollah Mehrabi & Dr Mahmood Ashrafi

The first paediatric surgery unit in Babol (Mazandaran) was established in ۱۹۸۹ by Dr Ahmad Khaleghnejad tabari in Shahid Beheshti Hospital. This unit completely moved to Amir Kola Children's Hospital in Babol. This unit still continues its therapeutic and educational activities and Dr Hadipour and Dr Ou'siya are currently working there.

In ۱۹۹۱, Dr Javad Nasiri founded a modern paediatric surgery unit in Zahedan and began to serve the sick children of this deprived area until ۲۰۰۱, when Dr Mohammadi pour took over his position (this unit is currently inactive and hopefully will become active in the near future as more colleagues are dispatched by the Ministry of Health and Medical Education).

Special Acknowledgment

In the previous pages, the long journey towards the formation and development of paediatric surgery in Iran was explained and we knew how it reached to this point after many ups and downs. It will be unfair if we do not remind ourselves a group of anaesthesiologists who contributed directly their ideas and energy to improve paediatric surgery, some I know and some I have tried to know. Paediatric surgery has been inspired by their experience, courage and support. To all we are especially grateful. I have tried to list them all as I know I might have left some of them out. So let me first apologise to all the wonderful people who I have missed, and say “thank you”.

Tehran University of Medical Sciences:

The Late Dr Niknejad, The Martyr Dr Abdollah Ramin, The Late Dr Azarmdokht Dadkhah, Dr Morteza Sadri, Dr Mohammad

Esmaeel Darabi, Dr Mitra Azarshahin, Dr Mohammad Zare, Dr Seyyed Mohammad Mir Eskandari, Dr Zolfaghar, Dr Soltani.

Shahid Beheshti University of Medical Sciences:

Dr Jahanshad, Dr Shiva, Dr Shayeghi, Dr Razavi.

Iran University of Medical Sciences:

Dr Etemadi, Dr Avanes Zadeh.

Mashhad University of Medical sciences:

Dr Mohammad Gharavi.

Isfahan University of Medical Sciences:

Dr Hassan Ali Soltani.

Shiraz University of Medical Sciences:

The Late Dr Ataollah Lotfi, Dr Mohammad Hassan Esmaeeli.

Tabriz University of Medical Sciences:

The Late Dr Mohazzab, Dr Shahgholi, Dr Oskoo'ee.

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