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Editors

a History of
SURGICAL PAEDIATRICS



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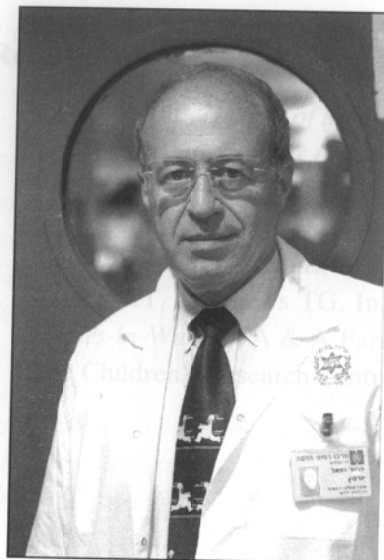
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a History of
SURGICAL PAEDIATRICS

 **World Scientific**

NEW JERSEY • LONDON • SINGAPORE • BEIJING • SHANGHAI • HONG KONG • TAIPEI • CHENNAI



Raphael Udassin



Abraham J. Mares



Shemuel Nissan

ISRAEL

**Raphael Udassin
Abraham J. Mares
Shemuel Nissan**

Introduction

From the second half of the twentieth century, pediatric surgery in Israel developed from the total absence of pediatric surgeons to departments of pediatric surgery that are accredited by the Scientific Council of the Israeli Medical Association to train Pediatric surgeons.

The first pediatric surgeon in the Holy Land and the Near East as a whole was Dr Max Sandrezky, a German physician who established the first Children's Hospital, in Jerusalem in 1872. A chapter describing his pioneer work is included in Section 5 of this book written by Dr Shemuel Nissan. Until the 1950's, pediatric surgery was practiced in Israel almost exclusively by general surgeons, and children were admitted either to pediatric departments or to adult general surgery departments. After the creation of the state of Israel (1948), medical services were formalized and modernized. The need for surgeons that are dedicated to pediatric patients became obvious with the mass immigration of Jews to the state, many of them with large numbers of children per family, as well as a high rate of birth and consanguineous marriages.

The first generation of Israeli surgeons who acquired some knowledge and interest in pediatric surgery were sent to children's hospitals in the United Kingdom and the United States in order that, upon their return to Israel, they would also practice pediatric

surgery within the framework of general surgery departments. Two surgeons from the Tel Aviv area, Drs Moshe Soloveichik and Dr M. Dintsman, were trained by Professor Andrew Wilkinson at Great Ormond Street. Dr Avraham Laufer was a surgeon who served in World War II in the British Royal Army Medical Corps in Ethiopia under Colonel Orde Wingate. After the war, Dr Laufer spent some time in Philadelphia under Dr C. E. Koop and was appointed Head of Pediatric Surgery at Hadassah.

Other general surgeons who treated children were Dr Ami-Zakai J. Abrahamson, in Haifa, who was a registrar on Professor A. Wilkinson's service at Great Ormond Street,¹ Dr Antonin Motovic who was trained at the Prague Children's Hospital and worked in Kfar-Saba, Dr M. Dintsman (previously mentioned) at the Beilinson Hospital in Petach Tikva, Dr Erwin Jacob and Dr Mordechai at Asaf-Harofeh Hospital in Zrifin, Dr Isidor Wollfstein at Tel Hashomer Hospital in Ramat Gan and Dr Moshe Soloveichik in Ichilov Hospital in Tel-Aviv. All the above mentioned doctors worked as part of a general surgery service.

The first named pediatric surgical department, with a pediatric surgeon as chief of the service, was established at the newly opened Hadassah University Hospital in Ein-Karem, in September of 1961. Dr Laufer passed away before the inauguration of the new hospital in Ein Karem, and the position of the chief pediatric surgeon of the service was offered to Dr Shemuel Nissan, who spent eight years at the Barnes and Children's hospital in St. Louis Missouri. After passing the board examinations in general Surgery and Thoracic surgery, in preparation for assuming the appointment in Jerusalem, Dr Nissan joined Dr W. Potts at the Children's Memorial Hospital in Chicago. The first step he had taken after assuming the assignment was to appoint two head nurses that were trained and qualified abroad. One was born in the USA and trained at the Boston Children's Hospital, the other born in England and trained at the Hospital for Sick Children at Great Ormond Street. They were to train additional nurses in the care of children. This shows Nissan's concept, later adopted elsewhere, that care for children needs to be comprehensive and does not end with surgery. This concept was

later expanded to specialized "child-friendly" wards, playrooms and in-hospital schools. In 1963 Dr S. Nissan was offered the position of the chief of the department of surgery and pediatric surgery, at the Central Emek Hospital in Afula, where a fair-sized building was dedicated to pediatric surgery. It served general and thoracic pediatric surgery as well as urology, orthopedics, E.N.T, neonatal and burn units. The nursing staff was trained specifically to take care of children.

As part of Nissan's comprehensive child care, a research laboratory was established with a biochemist, Dr Edna Rosen on the staff to specifically research surgically related childhood diseases. The studies in the laboratory were on the metabolism of sodium transport *in vitro* and in intact animals during several forms of dehydration.^{2,3} Prof Shemuel Nissan has established myectomy for treating the mild form of Hirschsprung's disease (mistakenly termed "short segment").^{4,5} He established a very productive neurophysiology laboratory with specific interest on intestinal motility.^{6,7} He was the first one to perform colonic interspersation for esophageal replacement in Israel⁸ and the first to perform a Swenson operation for Hirschsprung's disease in 1961 in Hadassah later to turn to Duhamel's operation in 1965. Nissan was the first to describe endoesophageal resection for benign strictures of the esophagus⁹ and the first to perform Nissen fundoplication in a familial dysautonomia patient.^{10,11}

Dr Nissan's place in Hadassah was taken by Dr Moshe M. Feuchtwanger (1963–1968) who later assumed the appointment of head of department of general surgery and Chairman of the Division of Surgery at the Ben-Gurion University (a rotating appointment) — Soroka Medical Center (then the Negev Central Hospital). As of 1968 he began to organize a pediatric surgical service within his general surgery department. This was later taken over by Dr A. J. Mares upon his arrival, as described later. Dr Feuchtwanger introduced the "side-to-side" duodenoduodenostomy,¹² as well as the Pidzerl's gracilis muscle transposition for the correction of anal incontinence.¹³

Following the unification of Jerusalem in 1967, the Hadassah University Hospital on Mt. Scopus was renovated. Dr S. Nissan was



Fig. 1. Prof Shemuel Nissan at 20 years celebration of the Department of Pediatric Surgery at Hadassah Mount Scopus, Jerusalem with Prof Omri Lernau on his right and Prof Raphael Udassin on his left (1987).

appointed the chairman of the department of surgery that included a separate wing of pediatric surgery with facilities for rooming in for parents (Fig. 1). The nursing staffs were trained to care for children. A neonatal intensive care unit was also available.

The second generation of pediatric surgeons consisted of two surgeons that have been trained in both general surgery and pediatric surgery but were willing to dedicate themselves solely to the practice of pediatric surgery, concomitant with the rise of Pediatric Surgery as a distinct profession.

The first of the two was Dr Abraham J. Mares, who obtained board certification in the United States, followed by Dr Medad Schiller. Dr Abraham J. Mares was trained in general surgery at the Beilinson Medical Center in Israel (1963–1965) and at the Beth-Israel Hospital in Boston (1965–1968) and was US Board Certified in general surgery (1969). He then continued his training in



Fig. 2. Prof Abraham J. Mares at the inauguration of the new wing of Pediatric Surgery, Soroka Medical Center, January 1992, at the foyer-entrance to the new Pediatric Surgery Department, with the senior representative of the donors, "RASHI foundation" and Mrs Ofra Mares.

pediatric surgery and was chief resident at the Children's Hospital of Los Angeles (1968–1969). Dr Mares returned to Israel in 1970 and was appointed head of a pediatric surgery unit, later to become a separate Department, at the Soroka Medical Center in Be'er-Sheva, covering the whole southern part of Israel (Negev) (Fig. 2). Among others, it serves the largest Bedouin population in Israel with high marriage consanguinity and has the largest number of obstetric deliveries in Israel in a single hospital.

Dr Abraham Mares was the first to perform upper thoracic sympathectomy for palmar hyperhidrosis in children in Israel since 1974,^{14,15} the first to introduce the Dartos pouch approach for orchiopexy since 1970 and the only one in Israel who continued for more than 25 years to use successfully the Swenson operation for Hirschsprung's disease.¹⁶ Dr Mares was also asked by the Israeli

authorities to train two Arab surgeons from the Gaza strip for a year in pediatric surgery, in the 1980's. Among his other duties, he served as Chairman of the Department of Surgery (all surgical specialties) from 1986–1990 (a rotating appointment) and as Vice Dean of the Faculty of Health Sciences at the Ben Gurion University of the Negev in Be'er-Sheva (1984–1986).

Dr Medad Schiller was trained at the Children's Hospital of Columbus, Ohio (1969–1971). He returned to Israel in 1971 and assumed the position of head of pediatric surgery department at the Hadassah University Hospital Ein-Karem (Fig. 3), the same department previously headed already by Drs Laufer, Nissan and Feuchtwanger. Dr Schiller had a large series of patients operated upon for biliary atresia,¹⁷ patients with familial total colonic Hirschsprung's disease¹⁸ and patients operated upon for hyperinsulinism.¹⁹ He became a worldwide authority on pediatric biliary operations. As part of his



Fig. 3. Prof Medad Schiller at 25 years celebration of the Department of Pediatric Surgery at Hadassah Ein-Karem, Jerusalem (1996). From left to right: Profs Emeric Lax, Medad Schiller, Nathan Saltz, Halil Abu-Dalo, Zvi Eyal, Shemuel Katz.

work, together with his colleagues from other hospitals, he established a system in which sick Palestinian children received regular surgical care in Israel, a system that still exists today.

The "offsprings" of the second generation of pediatric surgeons in Israel expanded the horizons of the profession. Following the training that most of them received already in Israel, they obtained further clinical fellowships in the United States, in Europe, in Australia and South Africa, some with innovations of their own.

Prof Nissan's trainees that became head of services include Dr Bar-Maor at Rambam hospital in Haifa (Fig. 4), Dr Lernau at Shaare-Zedek hospital in Jerusalem (Fig. 1), Dr Vinograd at Dana Children's Hospital in Tel-Aviv and Dr Udassin at Hadassah University Hospital in Jerusalem. Dr Udassin serves presently as the chairman of the Israel Association of Pediatric Surgery (Fig. 4). Dr Mares'



Fig. 4. Prof Shemuel Nissan with Prof James A. O'Neill with Nissan's "off springs" (1985). From left to right: Professors Nissan, Bar-Maor, O'Neill, Udassin, Vinograd.

trainees who became head of services include Dr Siplovich at Central Emek Hospital in Afula, Dr Steiner at Hillel-Yaffe Hospital in Hadera, Dr Freud at Schnieder Children's Hospital at the Rabin medical center in Petach-Tikva, Dr Kurzbart at Barzilai Hospital in Ashkelon and Dr Cohen at the Soroka Medical center in Be'er-Sheva, following Dr Mares upon his retirement in July 2000 (Fig. 5).

Dr Schiller's trainees who became head of services include the late Dr Shemuel Katz, who headed the pediatric surgery department at Sapir hospital in Kfar-Sabba (Fig. 3), and Dr Gorenstein at Wolfson hospital in Holon.



Fig. 5. Prof Abraham J. Mares visiting his former Department of Pediatric Surgery, Soroka Medical Center, on November, 2007 with some of the staff. From left to right: Prof Zahavi Cohen, present head of the Department, Mrs Orit Behar, Secretary, Mrs Ra'ia Madar, Head nurse, Prof Abraham J. Mares, Dr Nitza Neuman-Heiman, Dr Oleg Kleiner and two nurses.

Official Accreditation of Pediatric Surgery and the Formation of the Israel Association of Pediatric Surgery

The main driving force behind the official accreditation of pediatric surgery as a separate profession in Israel was Dr Mares. Upon his return to Israel in 1970 Dr Mares initiated the long process, with the active support of Dr Feuchtwanger, who served at the time as president of the Israel Surgical society. This long process finally ended up with the official declaration of pediatric surgery as a separate profession in 1985, with a separate syllabus, board examinations, and criteria for training program accreditation, a process that took some ten years, the crucial steps being:

1. The general assembly of the Israel General Surgery Association's decision of accepting the separation of pediatric surgery from general surgery (a separate society within the Israel Surgical Association) — November 1975.
2. Founding meeting of the Israel Association of Pediatric Surgery — June 1976 with Dr Mares as the first chairman serving up to 1990.
3. The formation of a syllabus for pediatric surgery training.
4. The acceptance of the syllabus by the Scientific Council of the Israel Medical Council — January 1982.
5. Naming of pediatric surgery founders ("forefathers") and the issuing of the first pediatric surgery specialty diplomas by Prof Baruch Modan, the General Director of the Israel Ministry of Health — 1983.
6. The formation criteria for training program accreditation and its approval by the Israel Medical council — 1985.
7. Official declaration of the new profession by the Israel Ministry of Health — 1985.

The Israel Association of Pediatric Surgery has applied for membership to the World Federation of Pediatric Surgery Associations while Dr Mares was serving as its chairman. Dr Mares was invited to their council meeting in Belgrade (1983) where the Association was

formally admitted; the same meeting the Russian Association was also admitted.

Syllabus. The initial approved syllabus for pediatric surgery was of six and a half years of "straight residency", including general surgery and rotations. It was changed in the mid-1990's, somewhat according to the American example, namely, a basic requirement of six years training and board certification in general surgery and then two and a half years in pediatric surgery and in an intensive neonatal unit.

Present status of pediatric surgery in Israel. The population of Israel is 7 million with 2.3 million children and the population of the West-Bank and Gaza strip are over 3 millions. There are 55 active pediatric surgeons and five residents (Fig. 6). These professionals are serving in 17 departments and units all over Israel. Six



Fig. 6. Members of the Israel Association of Pediatric Surgery, 1996.

of them offer full residency programs; each one of these six services operate on over 1500 children each year. All hospitals in Israel are getting pediatric surgery services from a board certified pediatric surgeon and it will be uncommon for a general surgeon to perform an operation on a child, though the Israeli law permits it. This shows that the concepts by the founding fathers of our profession have been well-ingrained into our system. Today, all pediatric surgical wards are set apart from the adult population and have a staff (doctors and nurses) completely dedicated to child health and welfare.

The fact that abortion is not an option for a large portion of the population for religious reasons (orthodox Jews and part of the Arab population) and the still abundant consanguineous marriages, cause a unique situation in which major congenital anomalies are still frequent. The birth rates in the Palestinian territories as well as in certain parts of Israel (most notably Jerusalem and the Negev) are more similar to less developed countries than to European or North American standards. The relationships with physicians of the West Bank have evolved from willingly admitting complicated surgical patients from the West Bank to Israeli hospitals to extensive fellowships that enabled the establishment of pediatric surgery services in Hebron, East Jerusalem and Gaza strip. Although most pediatric surgical procedures on Palestinian children are performed by Palestinian surgeons, complex cases are still referred to Israeli tertiary centers and are performed free of personal surgeon charge. These fellowship programs lead to close personal and professional relationships between the trainees and the pediatric surgeons in Israel. In the present political atmosphere, these connections define the maxim that medicine and politics do not intermingle.

The **Israel Association of Pediatric Surgery** is very active. There are two annual academic meetings and the required number of pediatric surgeons in Israel is continuously monitored. It promotes additional clinical fellowships in major pediatric surgery services throughout the world and modestly finances some of them.

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