BEGINNINGS OF MODERN NEPHROLOGY: PEOPLE AND FACTS

Pioneer women in Pediatric Nephrology in Poland



Ryszard Grenda¹, Małgorzata Pańczyk-Tomaszewska², Aleksandra Żurowska³

- ¹The Children's Memorial Health Institute;
- ² Warsaw Medical University;
- ³ Gdańsk Medical University, Poland.

Corresponding Author: Prof. Ryszard Grenda,

Aleja Dzieci Polskich 20, 04-739 Warsaw, Poland. Fax/phone: +48 (22) 815 1541; e-mail: r.grenda@ipczd.pl

ABSTRACT

There were three prominent female pioneers of pediatric nephrology in Poland, professors Teresa Wyszyńska, Maria Sieniawska and Marta Uszycka-Karcz. All three started their activity in late 50-ties and step-by- step developed nephrology service for children in Warsaw and Gdańsk. Thanks to their personal activity and efforts, the pediatric nephrology became a modern subspecialty, using evidence-based guidelines, conducting scientific research and providing renal replacement therapy to all children in Poland. All three ladies were leading persons in this field for many years and their impact on development of this medical specialty remains to be fundamental and unquestionable.

KEYWORDS: pediatric nephrology, Teresa Wyszyńska, Maria Sieniawska, Marta Uszycka-Karcz, Poland

Introduction

The Women in Nephrology (WIN) initiative was founded in 1983 by women in the field of nephrology. The purpose was to develop the mentors to women in the field. Over the years, the primary purpose was extended to mentoring both professional men and women in the field of nephrology, and currently WIN provides access to senior women in the field of nephrology who are motivated to mentor junior doctors (1). Interestingly, the pioneer history of pediatric nephrology in Poland resembles the overall idea of WIN initiative, as three prominent persons who created and developed this subspecialty, starting from 60-ties of the 20th century. They were Teresa Wyszyńska, Maria Sieniawska and Marta Uszycka-Karcz.

Teresa Wyszyńska was born in Warsaw (Figure 1).



She was graduated as MD in 1951. First step of her medical career was a clinical work in the small Pediatric City Hospital in Warsaw, where she organized the pediatric nephrology ward and outpatient clinic. She was graduated as PhD in 1961 discussing a thesis on the Impact of the pancreas – intrinsic system on course of experimental nephrosis). In 1975 she was promoted Associate Professor in 1975 by discussing a thesis on Studies on steroid-resistance in nephrotic syndrome in children. She was finally nominated professor of medicine in 1986. From 1978 to the retirement in 1999 she worked at The Children's Memorial Health Institute in Warsaw, as the head of Nephrology Department. The major topics of her professional interest were glomerulopathies, including nephrotic syndrome in children and secondary (HBV-related) membranous nephropathy, peritoneal dialysis in acute and chronic renal failure in children and arterial hypertension in children and adolescents. The major personal achievements of Teresa Wyszyńska included the elaboration of diagnostic and therapeutic algorithms in nephrotic syndrome, including step-wise management, longer vs shorter steroid therapy and indications to renal biopsy; research on prostaglandins metabolism in nephrotic syndrome, elaboration of therapeutic strategy in HBV- related membranous nephropathy; elaboration of diagnostic and therapeutic algorithms in pediatric hypertension, introducing acute peritoneal dialysis in intensive care and pediatric nephrology and

evidence-based introducing medicine related procedures and algorithms in pediatric nephrology in Poland (2). Nephrotic syndrome was her beloved topic and the earliest and the last papers she published (40years apart), were related to this disease (3, 4). She was serving as a head editor of *Pediatria Polska/* Polish Pediatrics for many years and the editor and major author of the first handbook of pediatric nephrology ever issued in Poland in 1975 (5). She has published more than 150 papers and was the editor/co-editor of 10 handbooks related to renal diseases and hypertension in children. What was the co-workers personal recognition, asked to answer the question: "Who she was for us?" Here are the answers: she was the guru in paediatric nephrology, fair boss, extremely strict scientific editor, excellent tutor and lecturer, unique personality with huge sense of humor and far distance to her divine position. She extremely loved the dachshund dogs, always having one aside.

Prof. Wyszyńska promoted several careers. The list of her most prominent fellows includes (in alphabetical order) the following persons: Elżbieta Cichocka, Ryszard Grenda, Paweł Januszewicz, Anna Jung, Zofia Konopielko, Jerzy Kryński, Sylwester Prokurat, Anna Wieteska-Klimczak and Jan Zawadzki.

The other pioneer was Maria Sieniawska (Figure 2).



Figure 2 - Prof. Maria Sieniawska (17.03.1928 - 4.04.2012; died in Warsaw)

She was born in Lvov and was graduated in 1951 at the Medical Academy Wrocław. Starting from 1952 she moved to the University Children's Hospital in Warsaw. Her PhD thesis (1962) was titled *Howard, Hopkins and Connor test in children*. The habilitation thesis (1969) discussed *Vitamin D action in children with impaired calcium absorption in the gastrointestinal tract*. She was nominated as professor of medicine in 1983. From 1979 to 1998 she worked as head of Department of Pediatrics and Nephrology in Medical Academy in Warsaw. The major topics of her interest were calcium-phosphate metabolism, growth problems in children with renal failure including growth hormone substitution in uremic patients, hemo — and peritoneal dialysis and cow's milk-related allergy in children with nephrotic syndrome. Her major personal achievements were:

- introducing regular hemodialysis program in children (1976);
- introducing CAPD program in children (1983) and

introducing growth hormone substitution in uremic children (1986) in Poland.

Apparently the calcium-phosphate/vitamin D-related issues were her beloved topics and the first and the last publication (42 years apart) were related to this subject (6, 7). For here coworkers: (i) she was the authority who often made the very accurate diagnosis based of scant information; (ii) an inquisitive researcher with international recognition; (iii) she was very demanding from herself and the entire clinic team and was fully dedicated to the Nephrology Department and was expecting the same attitude from her team; (iv) she taught us a holistic view of the patient, courage in introducing cutting-edge technologies and treatments; (v) she mobilized everyone for personal development; and (vi) she was able to create a consolidated team. Her principal hobby was travelling.

Prof. Sieniawska promoted several careers. The list of her most prominent fellows includes (in alphabetical order) the following persons: Beata Frącka, Paweł Grzesiowski, Czesława Gura Antoni Jędrzejowski, Izabela Kostro, Grażyna Krzemień, Małgorzata Pańczyk-Tomaszewska, Maria Rudzińska, Maria Roszkowska-Blaim, Hanna Szymanik-Grzelak, Joanna Welc-Dobies, Beata Sobolewska-Wojciechowska, Jarosław Sołtyski, Jolanta Weglarska, and Helena Ziółkowska.

The third lady pioneer in pediatric nephrology was Marta Uszycka-Karcz (Figure 3).



Figure 3 - Prof. Marta Uszycka-Karcz (7.03.1935 - 6.11.1990; died in Gdańsk).

She was born in Warsaw and was graduated in the Medical Academy in Gdansk in 1958. Her PhD thesis (1969) was related to Immunoglobulins in acute nephritic syndrome; in habilitation thesis (1978) she discussed Immunosuppression in children with nephrotic syndrome. In 1990 she was nominated as professor of medicine. Starting from 1985 she was the head of the Paediatric Nephrology Department of Medical Academy in Gdansk. The major topics of her interest were hemolytic-uremic syndrome (clinical manifestation, long term outcome and prognostic factors for poor outcome), nephrotic syndrome (epidemiology, kidney biopsy, immunosuppressive treatment); fate of dysplastic kidneys and dialysis therapy in children. Her major achievements were: 1. the organization of the first outpatient unit of pediatric nephrology (1972) in Northern Poland; 2. the organization of the first pediatric nephrology ward (further Department) in northern Poland with facilities for AKI treatment (PD 1971, HD 1985) and CKD (HD 1985, CAPD 1983); 3. introduction of peritoneal dialysis for AKI, HD and CAPD for CKD in children (60-ties, 80-thies of 20th century; respectively); 4. introduction of automated system for peritoneal dialysis in AKI (1981); 5. introduction of diagnostic renal biopsy in children with nephrotic syndrome; 6. raising awareness on HUS as a cause of AKI in children; 7. introduction of an algorithm for prognosing outcome in hemolytic–uremic syndrome and 8. introduction of risk factors and computed algorithms for outcome in clinical studies. Apparently the hemolytic-uremic syndrome was her beloved topic, as one of the early and of the last publications was related to this disease (8, 9).

Her coworkers recognized her as: (i) a warm, socializing personality; (ii) a dear friend for her contemporaries and a role figure for her younger colleagues and students; (iii) an exceptionally righteous, reliable and compassionate person and physician; (iv) active *Solidarity* (social movement) member and fighter for human and political rights; (v) a leader an excellent organizer and teacher; (vi) an openminded researcher with international recognition and a charming, beautiful lady. Prof. Uszycka-Karcz promoted several careers. The list of her most prominent fellows includes (in alphabetical order) the following persons: Zofia Gockowska, Halina Kaminska, Bogusław Karpowicz, Ewa Marczak, Krystyna Schramm and Aleksandra Żurowska.

One the common ways of three pioneers was related to achievement of the leading positions in scientific societies related to pediatric nephrology. Teresa Wyszyńska was a participant of the foundation meeting of European Society for Paediatric Nephrology (ESPN) in Glasgow in 1967 (10). In 1964 the Polish Society of Internal Medicine established Nephrology Section, gathering "adult" nephrologists and including two pediatricians related to the care of renal diseases in children. One of those two was Teresa Wyszyńska. In 1973 the Council of Polish Paediatric Society authorized Teresa Wyszyńska to organize the Paediatric Nephrology Section. It was launched in 1975 and Marta Uszycka- Karcz was elected as the first leader. In 1978 the first conference of

the Pediatric Nephrology section was organized by Marta Uszycka-Karcz in Gdańsk. In 1994 the Polish Pediatric Nephrology Association (PPNA) was established basing on the initiative of the pediatricians treating renal disease in children. First Presidents were Teresa Wyszyńska (1994-1997) and Maria Sieniawska (1997-2000). All three ladies became the honorary members of Polish Pediatric Nephrology Association in recognition of their activity.

All three leading pioneers have passed away: Marta Uszycka-Karcz in 1990, Maria Sieniawska in 2012 and Teresa Wyszyńska in 2014.

Summary

- All three ladies were charismatic physicians, teachers and persons.
- They represented "old golden standard" of being academic professor, head of the medical department and the president of scientific society.
- They developed and established the best clinical practice and research in paediatric nephrology of 70 – 90 – ties of 20th century, available in Poland.
- Many of currently active leaders of paediatric nephrology in Poland grew

 –up under their supervision.
- All remain in our loving memory.

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