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Leading figures in polish nephrology. Part I

— Zbigniew Fałda, MD PhD

Abstract

For over eight years now *Forum Nefrologiczne* has been filling some of its pages with the depictions of the figures of honorary members of the Polish Society of Nephrology. Having published 33 biographies to date, the authors wish to launch a new series presenting those who have received the title of the *Leading Figures in Polish Nephrology*. We begin with Dr. Zbigniew Fałda, who sadly passed away earlier this year. One of the pioneers of dialysis treatment in Poland, Dr. Fałda was a member of the Warsaw-based team taking initial steps into the field of hemodialysis in 1959, as the second one in the country. His merits for the development of Polish nephrology, notably dialysis treatment, are unique and well-known to more mature nephrologists, yet

may be completely unknown to the younger generation of doctors. This is especially true about the first 20 years of the development of dialysis treatment in Poland. Although his career coincided with the historically difficult moments for the country and the nation, it abounded in fascinating and important moments that, we feel, are worth bringing to light. The most prominent of those moments must be his participation and input into the development of hemodialysis and peritoneal dialysis, along with their modalities, based on solid training foundation Dr. Fałda had received in the world's leading centers like Lund (Sweden) or Seattle (USA).

Renal Disease and Transplantation Forum 2021, vol. 14, no. 2, 113–119

Key words: history of nephrology, Polish Society of Nephrology, meritorious for Polish nephrology

Since 2013, *Forum Nefrologiczne* has been publishing a series of biographies of honorary members of the Polish Society of Nephrology (PTN) like this article. So far, 33 biographies have been published starting with the article about the first President of the PTN, Professor Tadeusz Orłowski [1]. Paragraph 19 of the chapter of the PTN, as established in Bydgoszcz in 1983, states that the Society is also entitled to grant the titles of '*Leading Figures for Polish Nephrology*'. The title may be granted by the PTN Board upon request of local branch boards to individuals with particular merits for the development of nephrology or the Society itself. The awardees are presented with certificates. The honorary title has been also awarded to numerous individuals who had significantly contributed to the development of dialysis therapy in Poland, yet for some reason remained less known within the nephrological circles. Thus, an idea came about to present a series of biographical profiles of the '*Lead-*

ing Figures for Polish Nephrology' following the series dedicated to the honorary members of the Polish Society of Nephrology. One of the awardees was Zbigniew Fałda MD, Ph.D., who had been a member of the first team to carry out a hemodialysis procedure at the 1st Department of Internal Diseases of the Medical Academy in Warsaw headed by Prof. Andrzej Biernacki. The procedure was performed 62 years ago, in January 1959. On the news of Dr. Fałda's passing, a renowned Polish nephrologist, Prof. Zbysłut Twardowski wrote that Dr. Fałda's "impact on the advances in dialysis therapy was unprecedented." This opinion is shared by the authors of this article.

Zbigniew Fałda was born in Warsaw on April 1, 1930. His mother Maria was a teacher, and his father Zygmunt was a clerk at the Polish State Railways. Between 1935 and 1945, including the period of the Second World War, the family lived in Vilnius where young Zbigniew completed his primary education as

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Figure 1. Dr. Zbigniew Fałda MD in 1965 (photo by courtesy of Ms Magdalena Fałda-Binkiewicz)



Figure 2. Dr. Zbigniew Fałda demonstrating the Allwall's hemodialysis apparatus at the opening of the Haemodialysis Centre in Warsaw in January 1959 (from the archive of Janusz Ostrowski)

well as the first year of junior secondary education in underground classes. In 1945, they resettled in Poland. Zbigniew Fałda completed his junior and senior secondary education in Prudnik in Opolian Silesia to receive a *certificate of maturity* in 1949. In the years 1949-1954, he studied at the Faculty of Medicine of the Medical Academy in Warsaw. He was awarded a physician's diploma on November 15, 1954 (Fig. 1) [2].

Following graduation, Dr. Fałda started working as a junior assistant at the 1st Department of Internal Diseases headed by Prof. Andrzej Biernacki MD [3]. The Department was his main workplace for the next 25 years of his life. In January 1959, he was a member of the team performing the first hemodialysis procedure in Warsaw. This was the second team to perform this procedure in Poland, two months after the pioneering procedure had been carried out in Poznań (Fig. 2) [4].

In 1960, Dr. Fałda completed his first-degree specialization in internal diseases. As a senior assistant, he participated in a one-month internship at the Department of Nephrology and Haemodialysis Centre at the University of Lund, Sweden. At that time, the Department was headed by one of the global pioneers of dialysis therapy, Professor Nils Alwall MD [5-7]. In 1962, Dr. Fałda participated in the first

attempts at performing peritoneal dialysis in chronic kidney disease (Fig. 3) [8].

In 1963, he became a scientific consultant at the National Centre for Medical Technologies, a role in which he continued to serve for the next 15 years until 1978. Also in 1963, he participated in a training held in Moscow at the Urology Clinic headed by Professor J. Pytel MD. The Moscow clinic was a pioneering center for dialysis treatment in the USSR. In 1965, Dr. Fałda visited Seattle Artificial Kidney Center established by Professor Belding H. Scribner (Fig. 4). He stayed there from June to the end of October 1966. In the same year, he began his collaboration with the Institute of Cybernetics of the Polish Academy of Sciences headed by Professor Tomasz Nałęcz. In 1973, Dr. Fałda defended his doctoral dissertation at his home university. The work, supervised by Prof. Tadeusz Orłowski MD, was titled 'Anaemia in the course of repeated dialysis treatments in end-stage renal failure'. In the same year, he became the assistant Professor at the 1st Department of Internal Diseases. In 1976, Dr. Fałda completed his second-degree specialization in internal diseases. In November 1978, he started a scientific internship at the Lower Saxony Center for Nephrology in Hannover Münden, the Federal Republic of Germany; he completed it at the end of January

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Figure 3. Dr. Zbigniew Fałda demonstrating peritoneal dialysis treatment (from the archive of Janusz Ostrowski)



Figure 4. Dr. Zbigniew Fałda in front of the Seattle Artificial Kidney Center, 1965 (from the archive of Janusz Ostrowski)

1980. In August of the same year, he settled permanently in the Federal Republic of Germany, where his doctorate was accredited in 1981. In 1984, he was awarded the degree of specialist in nephrology by a committee of the Medical Chamber in Frankfurt am Main. From the end of July to the end of August of 1981, he was employed at the Lower Saxony Center for Nephrology. Starting from 1 September 1981, he began working at the Mühlengrud Clinic in Bad Wildungen (Hessen) as a deputy head of the Department of Nephrology and Dialysis Centre that he subsequently headed from July 1984 until the end of 1999 (Fig. 5). In 2000, Dr. Fałda retired.

During his work at the 1st Department of Internal Diseases, Dr. Fałda published more than 20 works on renal replacement therapy in Polish journals. Most frequently, his articles were published in *Polskie Archiwum Medycyny Wewnętrznej*, with Prof. Andrzej Biernacki MD and later Prof. Tadeusz Orłowski MD acting as Editors-in-Chief; other journals included *Polski Tygodnik Lekarski*, *Tworzywa Sztuczne w Medycynie*, and *Nefrologia i Dializoterapia Polska*. Dr. Fałda was also the author of a brochure on the technique of peritoneal dialysis published in 1969 [9-17]. In the 1970s, he gave numerous lectures at the nephrology sessions of the Polish Society of Internal Medicine, the Czechoslovak Internal Medicine Society, the Biocybernetics Conference of the Polish Academy



Figure 5. Bad Wildungen Haemodialysis Centre. Pictured from the left: Dr. Zbigniew Fałda MD, Dr. Bernard Siczek Ph.D. Eng. (from the archive of Janusz Ostrowski)

of Sciences, the Nephrological Committee of the Polish Academy of Sciences, or the EDTA Congress in Copenhagen in 1975, where he was one of the panelists. He also participated in several other EDTA Congresses in Florence, Paris, Helsinki, East Berlin, Amsterdam, and Gothenburg (Fig. 6). Another important piece of work was the educational film titled *On the beginnings of dialysis treatment in Poland* realized in collaboration with the Medical Scientific Film Centre in Warsaw in 1960 (Fig. 7).

Despite some restrictions posed by the volume of this publication, some fragments



Figure 6. Pictured from the left: Dr. Zbigniew Fałda MD, Prof. Belding H. Scribner MD, Prof. Soren Nielsen MD, EDTA Congress, Gothenburg 1989 (from the archive of Janusz Ostrowski)

▶▶ Just after establishing the Dialysis Centre at the 1st Department of Internal Diseases of the Medical Academy in Warsaw, Dr. Fałda completed an internship at the Department of Nephrology and Haemodialysis Centre at the University of Lund, Sweden headed by Professor Nils Alwall MD◀◀



Figure 7. Poster inviting to the presentation of the film On the beginnings of dialysis treatment in Poland held in Warsaw in 2009

of Dr. Zbigniew Fałda's biography deserve highlighting due to their particular importance and innovativeness.

Thanks to the efforts of the Ministry of Health's Committee for the Development of Nephrology headed by Prof. Andrzej Biernacki MD, two Allwall's artificial kidney devices had been purchased and installed at two centers in

Poznań and Warsaw. To make dialysis treatment more accessible to the public in need of chronic treatment, the complex medical equipment required some technical modifications. The main concerns included developing a proprietary model for arteriovenous fistulas and intravenous infusion catheters, constructing a proprietary model of artificial coil kidney, manufacturing Polish blood and heparin roller pumps and devices for the measurement of pressure and flow rates within the dialyzer, manufacturing artificial sheet kidneys, designing disposable peritoneal dialysis catheters, producing dialysis fluids in 2-liter containers, and many others. Along with a large group of engineering specialists, Dr. Fałda played a significant role in developing solutions to the above problems. The topic was elaborated in more detail by Dr. Fałda himself in his article titled 'Historia powstania i rozwoju Ośrodka Dializ w I Klinice Chorób Wewnętrznych Akademii Medycznej w Warszawie' [The History of the Establishment and Development of the Dialysis Centre at the 1st Department of Internal Diseases of the Medical Academy in Warsaw] [18].

Just after establishing the Dialysis Centre at the 1st Department of Internal Diseases of the Medical Academy in Warsaw, Dr. Fałda completed an internship at the Department of Nephrology and Haemodialysis Centre at the University of Lund, Sweden headed by Professor Nils Alwall MD. At that time, the Lund center had the greatest experience in dialysis therapy worldwide, with more than 1000 hemodialysis procedures already performed. Earlier, the center had also hosted Professor Tadeusz Orłowski who learned there skills crucial to the starting of hemodialysis treatments in Warsaw. After 20 years, the center was headed by one of the co-authors of this study, previously Dr. Fałda's co-worker at the Warsaw clinic, prof. Jan Kurkus.

The most fruitful period of Dr. Zbigniew Fałda's professional life appears to be that of his stay at the Division of Nephrology at the University of Washington in Seattle headed by the legendary Professor Belding H. Scribner MD. The stay had been preceded by Prof. Scribner's visit to Poland in 1963. As a prerequisite for taking up the physician's work in the United States, Dr. Fałda passed an exam for the Educational Council for Foreign Medical Graduates at the U.S. Embassy in Warsaw. Owing to his experience in the delivery of hemodialysis treatments, Dr. Fałda was respon-

sible for providing medical care to Mr. Clyde Shields, Professor Scribner's first patient who started chronic renal replacement therapy using HD in March 1960 [19]. In the years 1965–1966, Dr. Fałda collaborated with the renowned doctor Henry Tenckhoff, providing home-based peritoneal treatment to Dr. Tenckhoff's second patient.

His research conducted during his internship at the Lower Saxony Center for Nephrology in Hannover Münden, the Federal Republic of Germany, was supervised by the renowned German researcher, Eduard Quellhorst. Dr. Fałda's research was focused on comparing the outcomes of long-term treatment of patients with chronic kidney disease (CKD) using hemodialysis and hemofiltration based on clinical, hemodynamic, and metabolic parameter measurements. The research was funded by the National Institute of Health in Bethesda, USA. Dr. Fałda also compared the effects of carbonate and acetate buffers in CKD patients treated with hemodialysis and hemofiltration and determined serum aluminum levels in CKD patients undergoing hemodialysis, hemofiltration, and peritoneal dialysis treatments. He was also interested in treating CKD with continuous ambulatory peritoneal dialysis (CAPD), which was a novel modality at that time [20].

After settling down in Germany, Dr. Fałda discontinued his scientific activity in Poland, occasionally returning to his home country only to visit family and friends. The authors of this paper had contacted Dr. Fałda by e-mail in 2007 while preparing publications on the history of dialysis in Poland. His first conference-related visit was that to participate in the Scientific and Educational Conference of the Polish Society of Nephrology in Poznań in 2008 held on the occasion of the 50th anniversary of the first hemodialysis procedure that had been performed in Poznań 1958 (Fig. 8). At that time, Dr. Fałda welcomed the invitation to collaborate with the historical section of the PTN established at the time when the society was headed by Professor Andrzej Więcek MD. His next visit was associated with the Scientific and Educational Conference in Warsaw in 2009 (Fig. 9) where the educational film on the beginnings of dialysis therapy was presented. In 2012, Dr. Fałda attended a conference in Kraków on the occasion of the 50th anniversary of the first hemodialysis treatment performed in that city. In 2014, Dr. Fałda participated in the opening ceremony of the Cra-



Figure 8. Dr. Zbigniew Fałda during a presentation at the 2008 PTN Conference in Poznań (photo: Janusz Ostrowski)



Figure 9. Dr. Zbigniew Fałda with daughter Magdalena at the PTN Conference in Warsaw, 2009 (photo by Janusz Ostrowski)

cow Days of Dialysis Therapy and the historical session of the event (Fig. 10). One of the authors had also had the pleasure of sharing a joint stay in Ciechocinek, where the Warsaw clinic headed by Professor Biernacki had been running a health resort for the follow-up treatment of arterial hypertension following the hospital discharge (Fig. 11). In the following years, ill-health prevented Dr. Fałda from active participation in conferences held in Poland. Nonetheless, he remained in very close contact with his Warsaw-based colleagues and the authors of this paper, who appreciated it very much.

Dr. Zbigniew Fałda MD, Ph.D. passed away on 17 January 2021 in Bad Wildungen,

►►Dr. Fałda was responsible for providing medical care to Mr. Clyde Shields, Professor Scribner's first patient who started chronic renal replacement therapy using HD in March 1960◄◄



Figure 10. After the historical session at the Cracow Days of Dialysis Therapy in 2014. Pictured from the left: Prof. Janusz Ostrowski MD, Prof. Zbysław Twardowski MD, Prof. Krzysztof Marczewski MD, Prof. Mieczysław Lao MD, Dr. Zbigniew Falda MD, Prof. Bolesław Rutkowski MD (photo by Maria Ostrowska)



Figure 11. Pictured from the left: Prof. A. Biernacki MD, Grażyna Bacewicz, Dr. Zbigniew Falda MD, at the railway station in Ciechocinek, early 1960s. (from the archive of Janusz Ostrowski)

Germany. Due to the COVID-19 pandemic, funeral celebrations took place two months later, on 15 March, at the Powązki Military Cemetery in Warsaw.

To this day, Zbyszek (as many of us used to call him as a friend) is remembered as the first mentor and guide into the world of artificial kidneys and peritoneal dialysis. He was a much-respected figure and a role model for the physician-patient relationship. He was an excellent teacher, willing to share his knowledge and novel technical solutions in hemodialysis and peritoneal dialysis in Poland and beyond, including the Lund hemodialysis center in Sweden. Despite being quite reserved, he was a kind and cheerful person to be around socially. He also had a very friendly attitude toward younger colleagues. On his visits to Poland, he was happy to see the country's growth. Upon his departure, we have lost a friend and a physician whose contribution to the early development of dialysis therapy in Poland was extraordinary. His legacy should be examined in more depth in a longer publication.

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