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History of the Clinical Department of Radiology and Image Diagnostics in Provincial Hospital No. 2 in Rzeszów

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The prominent figure at the beginning of the history of the Department was Dr. Antoni Samojedny (Figure 1), who began his work at the newly formed organizational unit of the Department of Radiology in the Provincial Hospital No. 2 in Rzeszów on June 1st, 1989. The Department was planned and designed in the 1980s by Dr. Edward Prokop (Figure 2) in collaboration with Dr. Antoni Samojedny. Radiography-based diagnostics was started at the Provincial Hospital No. 2 in Rzeszów as the Department of Pediatric Radiology was put into operation on July 17th, 1989. This involved a great deal of both organizational and medical work, as besides Dr. Samojedny, the staff consisted of, one physician and three X-ray technicians. On December 15th, 1990 the Department of Radiology for Adult Patients and Computed Tomography Lab were officially opened (Figure 3). Thus, at the end of 1990, the Department of Radiology in the Provincial Hospital No. 2 in Rzeszów consisted of three separate units:



Figure 1. Dr. Antoni Samojedny, 1967.



Figure 2. Dr. Edward Prokop.



Figure 3. The Department of Radiology is being consecrated by Rev. Bishop Edward Białogłowski in the presence of the first director of the Hospital, Mieczysław Goszyła.

1. The Department of Pediatric Radiology consisting of two X-ray labs equipped with Medisor EDR instruments and an ultrasonography lab (Figure 4).

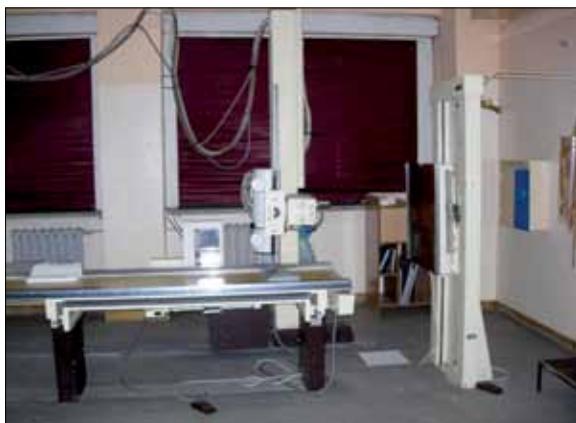


Figure 4. Medicor EDR X-ray instrument at the Department of Pediatric Radiodiagnostics.



Figure 5. TUR 700 X-ray instrument at the Department of Radiodiagnostics for Adults.



Figure 6. Hitachi EUB 565 apparatus at the ultrasonography lab of the Department of Radiodiagnostics for Adults.

2. Department of Radiology for Adult Patients consisting of three X-ray labs and an ultrasonography lab. The X-ray labs were equipped with radiological instruments produced by the now-nonexistent company TUR Dresden and a Farum X18 apparatus, while the ultrasonography lab was equipped with a Hitachi EUB 565 instrument. The latter was put into operation in 1991 and was in service for nearly 15 years (Figures 5 and 6).



Figure 7. Philips Tomoscan LX CT apparatus.



Figure 8. Elscin Privilege 0.5T MRI apparatus.

3. Computed Tomography Lab. On December 15th, 1990, the first computed tomography instrument – Philips TomoScan LX –was commissioned to operate in Podkarpackie Province. The apparatus was operated continuously for 14 years (Figure 7).

In 1996, the Department of Radiology of the Provincial Hospital no. 2 in Rzeszów changed its name to the Department of Radiology and Imaging Diagnostics. Two years later, a new Magnetic Resonance Lab was officially opened on November 30th, 1998. The MRI lab had at its disposal a 0.5T Elscin Privilege instrument obtained from ministerial funds in 1997. Lab construction and instrument setup works were completed in July 1998 (Figure 8). After four years of attempts to replace the existing computed tomography scanner and fourteen years of continuous operation of the previous instrument, a new, 8-row GE LightSpeed Ultra instrument was installed from the funds of the Provincial Marshal Office and the Provincial Hospital no. 2 in Rzeszów. The new CT lab was opened on May 31, 2004 (Figure 9). In the years to come, modernization of the Department of Radiology became a serious challenge for Dr. Samojedny. Thanks to the understanding and financial support from the Hospital management and the Provincial Marshal Office, efforts to replace outdated conventional X-ray instrumentation (TUR, EDR) in both the Department of Radiology for Adult Patients and the Department of Pediatric Radiology were finally brought to successful end. Thanks to a considerable financial support from the UE



Figure 9. GE LightSpeed Ultra CT apparatus.



Figure 10. Opening of the modernized Department of Radiology and Imaging Diagnostics in the presence of Rev. Bishop Kazimierz Górny, Dr. Antoni Samojedny and Prof. Andrzej Kwolek.

funds, a tender for the replacement of instrumentation and modernization of the Department of Radiology and Imaging Diagnostics was held in 2006.

The contract was signed in April 2006, and modernization works lasted more than one year, i.e. through April 2007. The “new” Department of Radiology and Imaging Diagnostics was officially opened on May 14th, 2007 (Figure 10). A total of 5 stationary X-ray instruments were installed, including 2 instruments with screening walls and digital light path, one instrument with analog light path and two mobile instruments by GE. The department was equipped with Precision Rxi, Proteus XR/i, and TMX+ instruments, as well as 2 ultrasound scanners by GE: Logiq 7, and Logiq 5 expert (Figures 11–13). In the early years of the Department of Radiology, a “conventional” darkroom processing of X-ray films was applied, to be replaced by automated darkroom processing in 1991; AGFA developing instruments (semiautomatic Curix 60 and Compact E.O.S) were used. In 2002, the “daily” X-ray film processing system was introduced, making traditional darkrooms redundant. Due to the planned modernization of the Department of Radiology and Imaging Diagnostics, two INITIA 1000 indirect digitalization scanners were leased from AGFA. In addition, four AGFA Drystar 3000 thermal printers are in operation within the Department



Figure 11. Precision Rxi X-ray instrument at the Department of Radiodiagnostics for Adults.



Figure 12. Proteus XRi X-ray instrument at the Department of Pediatric Radiodiagnostics.

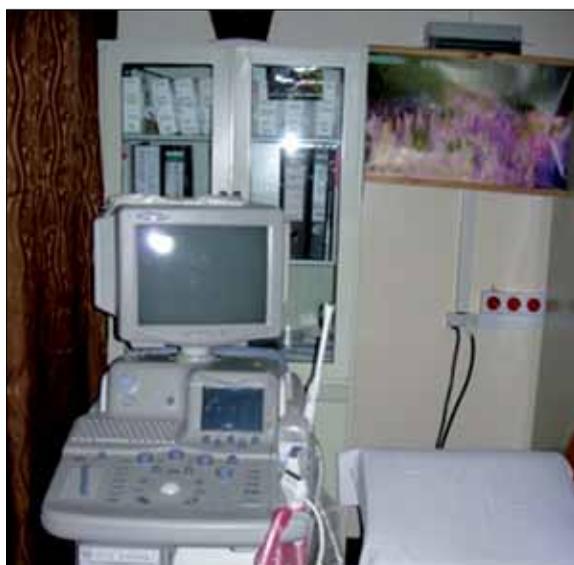


Figure 13. GE Logiq 5 expert ultrasound scanner.

of Radiology and the CT and MRI Center. From the beginning of Department’s operation, efforts were made to expand its instrumentation by and angiography apparatus. A special room was designated for that purpose within the Department of Radiodiagnostics for Adults; however, in 2001 it was temporarily transferred to the newly formed Hemodynamics Lab. For years, it seemed that despite Dr. Samojedny’s endeavors, the Vascular Imaging Lab would



Figure 14. Philips Allura X-per angiography instrument.



Figure 15. Dr. Jarosław Homa, Head of the Department of Interventional Radiology and Vascular Imaging.

not be formed. However, fortune changed in 2008: thanks to a PLN 1,300,000 donation from the Ministry of Health as well as courageous decision of Hospital Director, Janusz Solarz, counting on financial support from the Provincial Marshal's office, a "quick" tender was held to obtain an angiography apparatus. As the Hemodynamics Lab could now be moved to the new Cardiosurgery building, the Department regained the rooms originally designated for the vascular imaging lab; after some required adaptation of the facilities, the Interventional Radiology and Vascular Imaging Lab was established. The Lab, equipped with a Philips Allura X-per instrument was opened on October 1st, 2009 (Figure 14). Dr. Jarosław Homa (Figure 15), a former apprentice of Samojedny and at the time the Director Department of Provincial Specialist Hospital in Rzeszów, was assigned head of the Lab. The next stage of modernization within the Department of Radiology and Imaging Diagnostics was the replacement of the old 0.5T Elscint Privilege MRI apparatus. It was the last of the 5 instruments of this model installed in Poland in 1998. Efforts to replace the MRI instrument were carried out as part of the early cancer detection program. Thanks to the funding from the Provincial Marshal's Office and the Ministry of Health, we were able to purchase a new 1.5T Philips Achieva instrument (Figure 16). The official opening ceremony of the refurbished Magnetic Resonance Lab was held on April 23rd, 2010 (Figure 17). The next step in expansion of the Department of Radiology and Imaging Diagnostics was the establishment of a separate Department of Radiodiagnosics within the Emergency Ward, including



Figure 16. Philips Achieva 1.5T MRI apparatus.



Figure 17. MRI Lab is being consecrated by Rev. Bishop Kazimierz Górny in the presence of Dr. Antoni Samojedny.

a Radiography Lab and a Computed Tomography Lab. The tender to provide equipment to this Department was finally won by GE, and a Discovery CT 750 HD instrument and a Discovery XR656 instrument was installed (Figures 18 and 19). In addition two ultrasound scanners were purchased for the Department of Radiodiagnosics at the Emergency Ward as part of the same tender, partially financed from the EU funds: Logiq E9 and Logiq E (Figure 20). The official opening of the Emergency Ward, including the Department of Radiodiagnosics, was held on December 17th, 2012. From October 1st, 2013 pursuant to an agreement concluded between the Provincial Hospital No. 2 and the University of Rzeszów, the Department changed its name to Clinical Department of Radiology and Imaging Diagnostics. The last stage of modernization conducted in the Clinical Department of Radiology and Imaging Diagnostics from October 2013, is complete digitalization of the Department as part of the Podkarpackie Province Medical Information System. In relation to this project, the Department received five AGFA DX-M CR scanners installed within the Department of Radiodiagnosics for Adults and the Department of Pediatric Radiodiagnosics as well as several diagnostic stations deployed in all areas of the Clinical Department of Radiology and Imaging Diagnostics. These will optimize the utilization of human resources and increase productivity. After final installation of all instruments and after appropriate personnel training planned by the end of March 2014, all areas of the Clinical Department of Radiology and Imaging Diagnostics will operate using only the digital RIS and PACS systems



Figure 18. GE Discovery CT 750 HD CT apparatus within the Department of Radiodiagnostics at the Emergency Ward.



Figure 19. GE Discovery XR656 X-ray apparatus within the Department of Radiodiagnostics at the Emergency Ward.

working on PIXEL technology. As of 2014, the Clinical Department of Radiology and Imaging Diagnostics consists of five interconnected and complementary units deployed in different locations of the Provincial Hospital No. 2 in Rzeszów. These include:

1. Department of Radiodiagnostics for Adults with Ultrasonography Lab.
2. Department of Pediatric Radiodiagnostics with Ultrasonography Lab.
3. Computed Tomography and Magnetic Resonance Imaging Center.



Figure 21. The personnel of the Department of Radiology and Imaging Diagnostics, 2010.



Figure 20. GE Logiq E9 ultrasound scanner within the Department of Radiodiagnostics at the Emergency Ward.

4. Department of Interventional Radiology and Vascular Imaging.
5. Department of Radiodiagnostics within the Emergency Department.

In the near future, at the turn of years 2014/2015 establishment of a separate 4-room Central Ultrasonography Lab is planned due to increasing demand for ultrasound imaging. In 2015, replacement of the CT instrument is planned in the CT and MRI Center.

During the 25 years of the Department's activity, the scope of diagnostic examinations offered increased as a result of both introduction of new imaging techniques and the establishment of new hospital departments, such as Neurosurgery, Pediatric Orthopedics, Orthopedics, or Cardiosurgery.

Besides being the theater for strenuous work of 107 employees (Figure 21) performing about 75,000 imaging examinations of adults and children every year, including ca. 16,000 CT examinations, ca. 6,000 MRI examinations,



Figure 22. PLTR convention – celebrating 50 years of professional activity of Dr. Julian Wisz.



Figure 23. PLTR convention in Zabajka – celebrating the retirement of Dr. Marian Hadło.



Figure 24. Participants at the conference in Jawor in 1992: Prof. Zdzisława Bem and Dr. Antoni Samojedny with their collaborators.



Figure 25. Halina Uliasz – the head of the team of electroradiology technicians in years 1989–2011.

12,500 ultrasound examinations and about 500 procedures within the Department of Interventional Radiography, the Department of Radiology and Imaging Diagnostics is also a scene for teaching and research activities. From the beginning of the Department's existence, Dr. Samojedny attached much importance to the trainings of both medical personnel and electroradiology technicians. This was true not only in relation to our Department, as Dr. Samojedny, acting as the provincial expert on radiology starting from September 1st, 1990, strove to secure the highest possible number of specialist training positions for all centers within the Podkarpackie Province. Thanks to his efforts, there are currently about 40 specialist training positions within the Subcarpathian region. Another great contribution from Dr. Samojedny was reactivation of the Rzeszów Branch of the Polish Medical Society of Radiology in 1991, after five years of nonexistence. Dr. Samojedny became the first chairman of the board of the Rzeszów Branch, later renamed to Subcarpathian. He kept this position until 2010. The Subcarpathian Branch of the Polish Medical Society of Radiology has about 150 declared members, and the number of young physicians deciding to start specialist training radiology increases each year. Conventions of the Subcarpathian Branch of the Polish Medical Society of Radiology are held on site within the Provincial Hospital No. 2 in Rzeszów as well as outside Rzeszów, enjoying high attendance (Figures 22 and 23). Of note were the major scientific conferences held to commemorate the 10th, 15th and 20th anniversary of the Department, as well as the conference on computed tomography held in 1992 in Jawor (Figure 24) and the scientific conference to celebrate the 40 years of the Rzeszów Branch

of the Polish Medical Society of Radiology in 2004. The conferences were attended by many radiologists and, first of all, radiology professors from leading Polish academic centers. They were also held at some of the most attractive spots in the province, such as the Castle Museum in Łańcut, Krasiczyn, Polańczyk and Jawor in Bieszczady Mountains.

The wealth of the Clinical Department of Radiology and Imaging Diagnostics consists not only of the state-of-the-art instrumentation, largely meeting the standards of the 21st century, but, most of all, in its personnel. Dr. Antoni Samojedny was the head of the Department from its establishment on June 1st, 1989 thorough July 31st, 2011 when he retired passing his duties of heading the fully grown Department to his trusted apprentice, Dr. Wiesław Guz MD, PhD. Somewhat earlier, in December 2010, a change was also made on the position of the Head of the Technicians. Ms. Halina Uliasz (Figure 25) had been the head of technicians for more than 20 years since the establishment of the Department, taking care of the everyday needs of Department's operation as well as overseeing technicians' work and shaping their attitudes. Currently, the physician personnel of the Clinical Department of Radiology and Imaging Diagnostics consists of 24 employees:

- Head of the Clinical Department of Radiology and Imaging Diagnostics – Wiesław Guz MD, PhD.
- Deputy Head of the Clinical Department of Radiology and Imaging Diagnostics (Head of the CT and MRI Center) – Radosław Ramotowski MD, PhD.



Figure 26. Urszula Bazan – the head of the team of electroradiology technicians since 2011.

- Deputy Head of the Clinical Department of Radiology and Imaging Diagnostics (Head of the Department of Pediatric Radiodiagnostics) – Lidia Dziewicz MD.
- Head of the Interventional Radiology and Vascular Imaging Lab – Jarosław Homa, MD.
- Co-ordinator of the Department of Radiodiagnostics for Adults – Antoni Samojedny MD, PhD.
- Co-ordinator of the Department of Radiodiagnostics within the Emergency Ward – Mirosław Drozd, MD.
- Co-ordinator of the Ultrasonography Labs – Joanna Staryszak, MD.
- and the remaining specialists: Marta Bańdur MD, Janusz Darocha MD, Daniel Dudek MD, Ewa Dziurzyńska-Białek MD, Małgorzata Freygant MD, Jerzy Gierałt MD, Andrzej Gołofit MD, Agnieszka Grudzińska-Raczek MD, Przemysław Jadczak MD, Agnieszka Kostkiewicz MD, Mariusz Miązek MD, Małgorzata Rałowska MD, Anna Solińska MD, Joanna Stopa MD, Zbigniew Wiącek MD, Monika Wisz MD, Monika Zajac-Mnich MD.

There are currently 12 resident physicians undergoing specialist training within the Clinical Department of Radiology and Imaging Diagnostics: Maria Gałuszka MD, Joanna Kłęba MD, Jadwiga Krukowska MD, Iwona Kucharska-Miąsik MD, Ewa Kuźniar MD, Monika Mierzwa-Ścisłowicz MD, Magdalena Osuchowska MD, Krzysztof Sikora MD, Ewa Szalacha-Tarała MD, Krzysztof Terpin MD and Karolina Zaremba MD.

The staff of electroradiology technicians consists of 52 employees, with the new head of the team being Ms. Urszula Bazan (Figure 26). Of note is the fact that 6 of these X-ray technicians have university degrees. In addition, the Department of Radiology and Imaging Diagnostics employs 3 engineers, 8 nurses and 8 medical secretaries. Over the last 25, our Department of Radiology employed a multitude of individuals, both physicians and technicians, who worked or underwent training for shorter or longer periods. Notably, physicians once employed at the Department of Radiology include: Katarzyna Piasecka, MD, PhD – deputy head of the Department of Radiology by 1998, Jacek Gwizdak MD, Stanisław Wisz MD, Piotr Szczupak MD, Edward Henke MD, Robert Pleśniak MD and Iwona Rościszewska--Żukowska



Figure 27. Lesław Słupek, Eng. (second from left).



Figure 28. Specialization exam within the Department of Radiology and Imaging Diagnostics in 1995 – third from left, prof. Józef Kuśmierski.

MD. Also, formerly employed at the Department of Radiology and Imaging Diagnostics were 20 electroradiology technicians, 8 nurses and medical secretary, and also three engineers. One of these, Mr. Lesław Słupek, deceased on December 25th, 1999, is particularly remembered for his extraordinary kindness and humor (Figure 27).

In years 1992–2003, the Department of Radiology and Imaging Diagnostics in the Provincial Hospital No. 2 in Rzeszów hosted the 1st degree specialization exams in radiodiagnostics, headed by Prof. Józef Kuśmierski (until 1997 – Figure 28), and after his death, by Prof. Andrzej Urbanik, the Head of the Department and Chair of Radiology of the Jagiellonian University Medical College. In this period, Dr. Antoni Samojedny was the specialization supervisor for more than 40 candidates for 1st degree specialization and 21 candidates for 2nd degree specialization. In years 1990–2009, two-stage specialization („old type”) training was completed by 56 and 22 physicians (1st and 2nd degree specialization, respectively), while the „new type”, single-stage specialization training was completed by 36 physicians. The Clinical Department of Radiology and Imaging Diagnostics is also a training base for the vocational school of electroradiology technicians, the Faculty of Medicine of the University of Rzeszów as well as the Rzeszów University of Technology. Partial internships are held not only by radiologists, but also by numerous physicians of other specializations. In years 1990–1991, the Department trained the students of the Faculty of Medicine of the Medical Academy of Cracow as part of the Clinical Teaching Institute in Rzeszów. In years 1997–2013, materials of the Department of Radiology and



Figure 29. Prof. Janusz Złomaniec (third from left) accompanied by his graduate students and Dr. Antoni Samojedny.



Figure 30. Mr. and Mrs. Mielecki at the meeting with Dr. Samojedny in Wrocław.

Imaging Diagnostics, and in particular of the CT and MRI Center, served as the research material for 8 doctoral dissertations, largely due to the contribution from the scientific supervisor of six of these dissertations, Prof. Janusz Złomaniec from the Medical Academy of Lublin (Figure 29). The late asst. prof. Tadeusz Mielecki (Figure 30), who was the scientific supervisor of the first doctoral dissertation – that of Dr. Antoni Samojedny – also deserves a mention. Individuals deserving acknowledgments for providing trainings, help and support include: Prof. Zdzisława Bem, Prof. Małgorzata Szczerbo-Trojanowska, Prof. Urszula Grzesiakowska, Prof. Andrzej Urbanik, Prof. Andrzej Drop (Figures 31 and 32).

Particular gratitude for understanding the role and importance of the Department of Radiology in the Provincial Hospital No. 2 in Rzeszów, as well as for supporting the Department's growth regardless of external difficulties and unending shortage of funds is owed to the directors of our hospital, particularly to Mr. Janusz Solarz (Figure 33), former Vice-Minister of Health, who has been caring for the development and good name of the hospital since 2001. During the 25 years, a lot has changed in the the Department of Radiology and Imaging Diagnostics; some older colleagues might even say that nearly everything has changed there. Thanks to the steadfast faith of and persistent struggles of Dr. Antoni Samojedny (Figure 34), a modern and full-profile radiology center has been established within the Podkarpackie province. It is my hope that it will remain so in the future, serving the entire province and supporting other centers and individual radiologists



Figure 31. Conference held on the occasion of the 20th anniversary of the Department of Radiology and Imaging Diagnostics – Prof. Małgorzata Szczerbo-Trojanowska speaking with Dr. Antoni Samojedny.



Figure 32. ECR Vienna – meeting with Prof. Andrzej Urbanik (center).

in their efforts to continuously improve their skills, uniting and gathering them not only on professional, but also on friendly grounds. A great contribution of Dr. Samojedny was breathing new life to radiology within Subcarpathian region, since although the discipline had been present and gradually developing in many centers within the province it was only in the last quarter of the century when we could witness its dynamic growth. As an evidence, let us summarize the current condition of this discipline in our region. Currently, in Podkarpackie Province there are 160 physicians associated with radiology, including 100 specialists, 20 radiologists with 1st degree specialization and 40 physicians undergoing specialist training at 8 training sites. In addition, Subcarpathian region has at its disposal state-of-the-art radiological instrumentation in including 32 CT systems, 19 MRI systems and 7 angiography systems. In 1990, the overall number of radiologists with first or second degree specialization was as low as 36, and the modern radiological equipment consisted of a single CT system.

On the occasion of the 25th anniversary of the Department of Radiology and Imaging Diagnostics in the Provincial Hospital No. 2 in Rzeszów, I would like to wish Dr. Antoni Samojedny and all his collaborators that they may enjoy good health and esteem of their peers while continuing to



Figure 33. Janusz Solarz, MSc – director of the Provincial Hospital No. 2 in Rzeszów.

put their knowledge and expertise to the service to our patients and to deliver state-of-the-art imaging diagnostic services to the society. For perhaps the technology is not



Figure 34. Dr. Antoni Samojedny, 2012.

able to replace kind attitude and medical intuition, but it surely helps to see and understand what is „obscured from the human eye“.