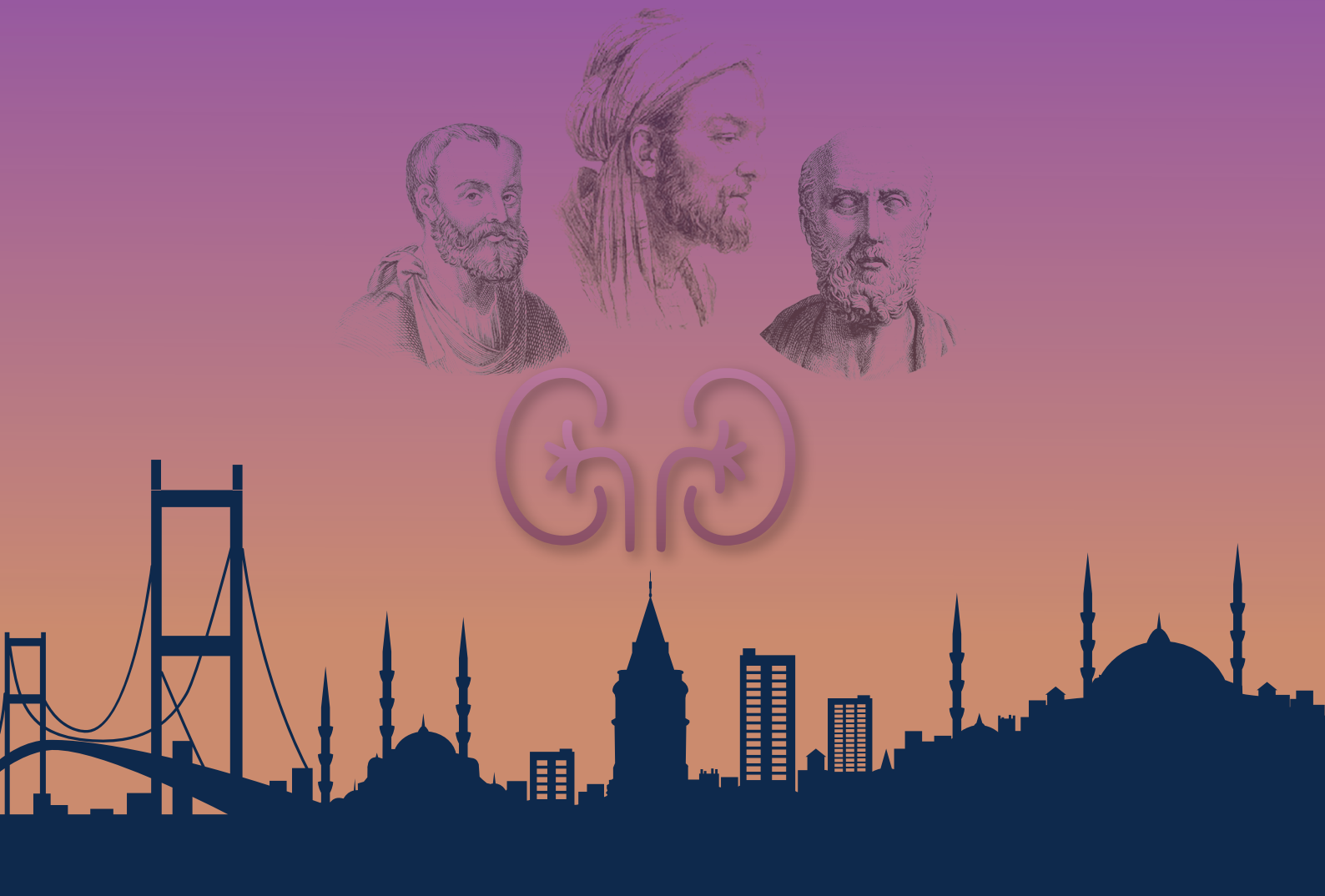
XII[th] Congress of International Association for the

HISTORY OF NEPHROLOGY

30 June - 03 July 2022, İstanbul, TURKEY



Abstract Book

Welcome

We are pleased to announce of the XIIth Congress of the International Association for the History of Nephrology (IAHN).

The distinguished leaders in History of Nephrology from all over the World will meet in İstanbul for this Congress. Together with Gaziantep University, Ankara University, İstanbul University, Health Sciences University, Turkish Society of Nephrology and Turkish Society of Pediatric Nephrology will be our partners. We hope to see all academicians and physicians in nephrology, medical historians, and students interested in history of nephrology.

The content and the diverse format of delivery and interaction at the conference (state of art lectures, panel discussions, plenary sessions, and oral presentations) will facilitate networking and the opportunities to form collaborative teams.

In this Congress, we will share experiences, identify how to build bridges between the institutions having background of history of nephrology, and establish a platform to enhance and ensure research technics and promote partnerships between researchers in history of nephrology.

We will be glad to see everyone who wants to travel in history, accompanied by the fascinating beauty of Istanbul.

Professor Ayşe BALAT, MD
Congress Chair

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XIIth CONGRESS OF INTERNATIONAL ASSOCIATION FOR THE HISTORY OF NEPHROLOGY

Scientific Program (30 June - 03 July 2022), İstanbul, TURKEY

Thursday, 30 June 2022

09:00-17:00	**Registration**	
20:00	**Welcome Reception**	

Friday, 1 July 2022

Hour			
08:30-09:30	**Opening Ceremony**		
09:30-10:00	**State of Art Lecture (Online)** **Chairs: Ioannis Stefanidis, Rümeyza Kazancıoğlu** Interstitial Nephritis. Wherefrom, Wherein and Whereto		**Garabed Eknoyan**
10:00-10:30	**Plenary Lecture-1** **Chairs: Ali Anarat, Vincenzo Savica** Hippocrates' Intuition on the Loop of Henle's Role in the Ions Exchange		**Athanasios Diamandopoulos**
10:30-10:45	**Coffee Break**		
10:45-11:30	**Panel: History of Nephrology in Turkey** **Chairs: Ayla San, Harika Alpay**		
	History of Nephrology in Turkey		**Ali Başcı**
	History of Pediatric Nephrology in Turkey		**Ayfer Gür Güven**
11:30-12:00	**State of Art Lecture** **Chairs: Ruhan Düşünsel, Halima Resic** Renal disease of Roman Pontiffs: A Historical Review From Pope Vigilius to John Paul II (590-2005 AD)		**Natale G De Santo**
12:00-13:30	**Lunch**		
13:30-14:30	**Mini Lectures-1** **Chairs: Hulusi Koçak, Sevgi Mir**		
	Trends in Renal Replacement Therapy in Bosnia and Herzegovina in the Last Decade		**Halima Resic**
	Emigration of Scientists From Czechoslovakia During Soviet Domination		**Katarína Derzsiová**
	Consideration of Comparing Empirical and Evidence-Based Knowledge on Nephrology in the Example of Ahi Çelebi's 15th Century Turkish Treatise on the Urinary Calculus		**H. Nil Sarı**
14:30-15:00	**Plenary Lecture-2 (Online)** **Chairs: Önder Yavaşcan, Rezan Topaloğlu** Some Romanian Studies on Renal Physiology and Biological Rhythms		**Dana Baran**
15:00-16:00	**ORAL SESSION-1** **Chairs: Domenico Santoro, M. Şükrü Sever**		
	1.	Urosepsis a Leading Cause of Death in Acute Kidney Injury of Roman Pontiffs: A Historical Review From John XXI to John Paul II (1277-2005) **Natale Gaspare De Santo, Carmela Bisaccia, Luca Salvatore De Santo**	
	2.	An Analysis of Historical Figures with Depression and Kidney Disease: Current Co-Morbidity Studies in Light of Ancient, Medieval, and Early Modern Descriptions of Disease **Davide Viggiano, David Widmer**	
	3.	Researches on Hunger Disease in the Warsaw Ghetto in 1940-1942 Ethical and Nephrological Aspects **Jarosław Sak**	
	4.	A Story of Serendipities: From Phlorizin to Gliflozins **Özant Helvacı, Burçak Cavnar Helvacı**	
16:00-16:15	**Coffee Break**		
16:15-17:30	**ORAL SESSION-2** **Chairs: Katarína Derzsiová, Sabahat Alışır Ecder**		
	1.	Ancient Wisdom in Pandemic Times: Socrates' Triple Filter Test **Maria Kalıentzıdou**	
	2.	50 Years of Kidney Transplantation in Rijeka and Croatia **Sanjin Racki, Dean Markic, Josip Spanjol**	
	3.	History of Renal Transplantation in the Arab World **Dina Abdellatif**	
	4.	Publications with Nephrological Thematology Appearing Diachronically in the PubMed Bibliographical Database **I. Stefanidis, T. Eleftheriadis, E. Nikolaou, E. Valiakos, M. Kalientzidou, A. Diamandopoulos**	
	5.	A Study on the Sources of Chief Physician Kātib-zāde Meḥmed Refī' Efendi's Risāla 'Illat Mathāna, or Did Kātib-zāde Actually Use the Works of European Authors as Sources? **Ahmet Acıduman, Çağatay Aşkit**	
17:30-18:30	**Board Meeting of IAHN**		
20:00	**Dinner**		

XII[th] CONGRESS OF INTERNATIONAL ASSOCIATION FOR THE HISTORY OF NEPHROLOGY

Scientific Program (30 June - 03 July 2022), İstanbul, TURKEY

Saturday, 2 July 2022

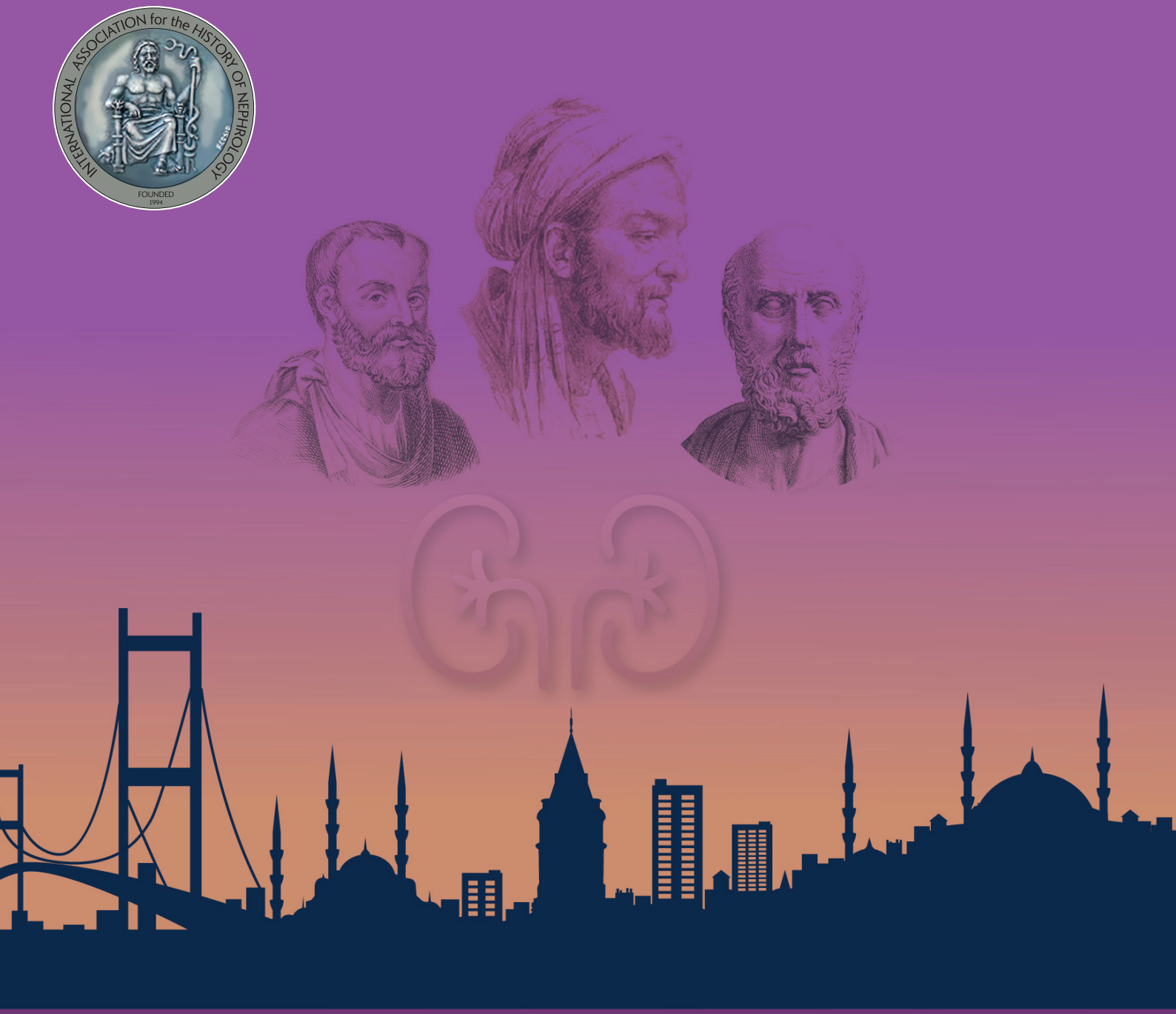
Hour		
08:30–09:00	**Plenary Lecture-3** **Chair: Aydın Türkmen, Dilek Torun** An Unsung Pioneer in the Turkish University Reform-ERICH FRANK	**M. Şükrü Sever**
09:00–09:30	**Plenary Lecture-4** **Chairs: Maria Kalientzidou, Emel Akoğlu** The Mysterious Life of Jeronimus Ruscelli and His Contribution to Nephrology (1504-1566)	**Guido Bellinghieri**
09:30-10:00	**Plenary Lecture-5** **Chair: Ayşe Öner, Ayten Altıntaş** What Does the Most Celebrated and Pioneer Ottoman Physician Şanizade Mehmed Ataullah (Shānī-zāde Meḥmed 'Atā' Allah) Efendi Say on Anatomy, Physiology, Diseases, and Surgery of Urinary System: A Glance at Hamse-i Şanizade or Kanun-ı Şanizade (Khamse Shāni-zāde or Qānūn Shani-zāde)	**Ayşe Balat**
10:00–10:15	**Coffee Break**	
10:15–11:00	**Mini Lectures-2** **Chairs: Lale Sever, Necla Buyan**	
	Nephrology Before NEPHROLOGY in Poland	**Janusz Ostrowski**
	Remedies for Kidney Ailments in "Physica" by Hildegard von Bingen (1098-1179)	**Ioannis Stefanidis**
	History of European Society for Paediatric Nephrology (ESPN): The Milestone for Pediatric Nephrology in Europe	**Rezan Topaloğlu**
11:00–12:15	**ORAL SESSION-3** **Chairs: Janusz Ostrowski, Sema Akman**	
	1. Urinary System Problems in Al-Rāzī's Book Men Lā Yaḥḍuruhu Al-Tabīb: Practical Advice for Those Who Cannot Access Physicians and Medical Recourses **Abdullah Yıldız, Ayşe Kurtoğlu, Ahmet Acıduman**	
	2. On the Surgical Treatments Related to Nephrological Issues in 'Alī b. al'Abbās al-Majūsī (Haly Abbas)'s Kāmil al-Ṣinā'a al-Ṭibbiyya (The Perfect Book of the Art of Medicine) **Özgür Kuş, Ahmet Acıduman**	
	3. Evaluation of the Urinary System Diseases Sections in the Book Cerrahiyyetü'l Haniyye-Imperial Surgery by Sabuncuoğlu Şerefeddin **Murat Aksu**	
	4. On Kidney and Bladder Diseases in Nuzhat Al-Azhan Fī Iṣlāḥ Al-Abdān by Physician Dāwūd b. 'Umar Al-Anṭākī **Sadık Nazik, Funda Gülay Kadıoğlu, Ahmet Acıduman**	
	5. Personal Experiences of Chief Physician Emir Çelebi on Kidney and Bladder Diseases: A Brief Review in Anmūzaj Al-Ṭibb **Ahmet Acıduman, Çağatay Aşkit, Ayşe Balat**	
12:15–13:30	**Lunch**	
13:30–14:00	**Plenary Lecture-6** **Chairs: Alaattin Yıldız, Athanasios Diamandopoulos** Utility of Urine: From Antiquity to the Moon	**Vincenzo Savica**
14:00–14:30	**Plenary Lecture-7** **Chairs: Tevfik Ecder, Ayfer Gür Güven** History of Kidney Transplantation in Turkey: From Past to the Future	**Mehmet Haberal**
14:30–15:45	**ORAL SESSION-4** **Chairs: Ilmay Bilge, Ali Başçı, H. Nil Sarı**	
	1. Franz Volhard: 150[th] Birth Anniversary of a Father of Nephrology and Hypertension **Domenico Santoro, Guido Bellinghieri, Vincenzo Savica, Guido Gembillo**	
	2. Remembering Erich Frank: A Review on "Dahili Böbrek Hastalıkları Kliniği" **Özant Helvacı**	
	3. Robert Tigerstedt - Discovery of Renin **Janusz Ostrowski, Jan Kurkus**	
	4. Heliodor Laskowski (1898 - 1936) – The Creator of the Polish Coastal Artillery and His Kidney Disease **Jaroslaw Sak, Magdalena Suchodolska**	
	5. Horseshoe Kidney: 500 Years From the First Report in the Literature **Guido Gembillo, Guido Bellinghieri, Vincenzo Savica, Domenico Santoro**	
15:45–16:00	**Coffee Break**	

Saturday, 2 July 2022

Hour		
16:00-17:15	**ORAL SESSION-5** **Chairs: Chairs: Davide Viggiano, Sanjin Racki, Rüya Özelsancak**	
	1.	FMF-Related Amyloidosis in Turkey: A Wound that Still Bleeds? **Özant Helvacı**
	2.	From a Surgeon's Registry (Dr. Hayri Meriç), Urological Surgeries and Their Results Performed in Gaziantep Hometown Hospital in 1949 **Ömer Bayrak, Özcan Sevim, Samet Bayrak, Ayşe Balat**
	3.	An Overview of Urinary System Malingering in Military Medicine Practices at the Beginning of the 20[th] Century **Eray Serdar Yurdakul, Nuray Güneş**
	4.	History of Sleep Disorders in Kidney Disease **Rosa Maria De Santo, Biagio Raffaele Di Iorio, Natale Gaspare De Santo**
	5.	Malaria a Papal Disease **Carmela Bisaccia, Luca Salvatore De Santo and Natale Gaspare De Santo**
17:15-18:00	**General Assembly of the IAHN**	
19:30	**Gala Dinner**	

Sunday, 3 July 2022

Hour		
09:00-09:30	**Chairs: Eray Serdar Yurdakul, Murat Aksu** **Rational Drug Use in Nephrology**	**Beltinge Demircioğlu Kılıç**
09:30-11:00	**CLOSING REMARKS**	



STATE OF ART LECTURES

Interstitial Nephritis. Wherefrom, Wherein, and Whereto.

Garabed Eknoyan

Baylor College of Medicine, Houston, Texas, USA

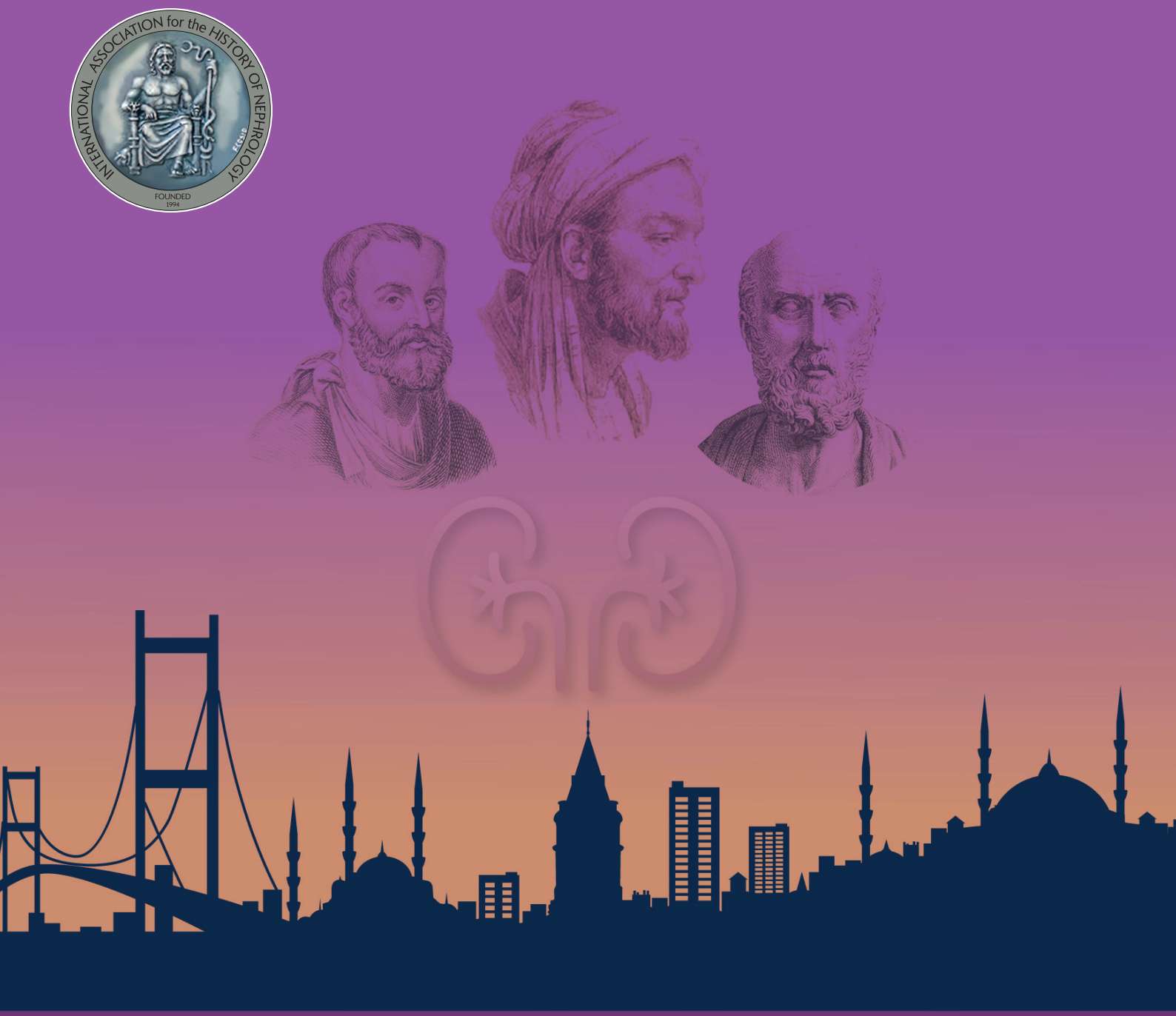
Abnormalities of the renal interstitium were noted early in the course of identifying chronic kidney disease (CKD) in 1827, but interest in glomerular, vascular, and tubular lesions distracted from their further study. It was as a complication of scarlet fever that interstitial lesions attracted attention in 1859 and came to be defined as acute interstitial nephritis (AIN) in 1898. Their chronic form was traditionally attributed to pyelonephritis until the advent of kidney biopsy in the 1950s, when interstitial lesions were recognized as an independent primary cause of CKD from studies of analgesic nephropathy and vesico-ureteral reflux. The term tubulointerstitial nephritis (TIN) was introduced in 1963 and promoted to denote the role of the tubules in the pathogenesis and the clinical presentation of TIN as tubular dysfunction. Studies since then have established that fibrotic TIN lesions corelate best with the severity and progression of kidney diseases independent of their etiology.

Renal disease of Roman Pontiffs: A Historical Review From Pope Vigilius to John Paul II (590-2005 AD)

Natale Gaspare De Santo

Emeritus Professor University of Campania Luigi Vanvitelli, Naples Italy

A total of 68 clinical narratives are the basic material for a review on renal disease affecting Roman pontiffs. In the years 590 to 1910 a total of 38 popes suffered of kidney stone disease of gouty (n= 27) and non-gouty origin (n=11). Their kitchen was generous in sodium chloride. Many of them had chronic kidney disease and died with small kidneys, a few died of stroke. In the year 1277 John XXI-a pope very friendly to scientists of vision- died in Viterbo of crush syndrome within 6 days following the falling of the ceiling of his office. He opened the list of 21 popes who died of AKI mainly of septic origin (95.2%). Dropsy was associated with death of nine popes reigning in the years 1535-1978.



PLENARY LECTURES

Hippocrates' Intuition on the Loop of Henle's Role in the Ions Exchange

Athanasios Diamandopoulos

EKPA, Louros Foundation for the History of Medicine, Chaidari 12462, Greece

Several theories have appeared trying to trace Hip pocrates' sources of knowledge. Egyptian priests/doctors, natural pre-Socratic philosophers, the Medical Schools of Cos or Cnidus are the main candidates as the origins of his education. In this paper, we discuss the contribution of another humbler source, namely the manual crafts. Even if not always a perfect fit, the similarities between the medical art and that of manual workers have been used as an easy approach for explaining complicated medical issues and for supporting his hypotheses. More generally, the ancient Greek scientific thought, at least in the periods before and soon after Hippocrates, was keen to produce hypotheses without labouring to soundly support them with strict scientific data. Nowadays, evidence-based medicine glorifies megadata while in the remote past imagination ruled free. The subject is very broad and we plan to elaborate on it in a future study. For the purposes of a Congress on the History of Nephrology we focus on some of his thoughts concerning the body's functions, their counterparts in manual works and their interpretation as an early intuition of the renal tubule's function as well. The material we used was the current knowledge of the physiology of the afferent, efferent convoluted tubules and Loop of Henle and a passage of Hippocrates' work "Regimen". The former, from its beginning to its end, pushes electrolytes, micronutrients and water out of its interior into the interstitial space and on the contrary it reabsorbs some of them. This paradox countercurrent multiplication eventually achieves internal equilibrium. In Regimen 1.6 we read: "All other things are set in due order […] Those that take give increase, those that give make diminution. Men saw a log; the one pulls and the other pushes, but herein they do the same thing, and while making less they make more. Such is the nature of man. One part pushes, the other pulls; one part gives, the other takes". Apparently, Hippocrates did not, and could not, know the details of renal function. Although his hypothesis is crude, we are justified to consider it as the medical ancestor of our current physiological knowledge. Exactly as a crude Paleolithic stone tool is the sculptural ancestor of Michael Angelo's Pieta.

Some Romanian Studies on Renal Physiology and Biological Rhythms

Dana Baran

"Grigore T. Popa" University of Medicine and Pharmacy, IASI, Romania

Medical significance of biological rhythms has been more accurately defined and quantified since the 20th century. After 1960s Romania synchronised to this approach too. Medical clinics together with various institutes, faculties and university chairs investigating human biology, physiology, endocrinology and nephrology, but equally public health and hygiene aspects set up chronobiomedical projects. Circadian control of psycho-neuro-immune-endocrine integration was studied, along with stress and defence reactions. In their turn renal chronophysiology and chronopathophysiology were characterised while chronotherapy advantages were estimated. From this perspective interest mainly focused on defining: 1. correlations between the renal system and the hypothalamic-pineal axis of the central circadian pace-maker; 2. impact of pineal serotonin, melatonin and arginine-vasotocin hormones and renin-angiotensin system on kidneys; 3. kallikrein-kinin system influence on blood pressure, coagulation, inflammation and pain; 4. quantitative and qualitative periodical oscillations of urinary excretion; 5. cardiovascular circadian rhythms, homeostatic variations and reciprocal interaction with the kidneys; 6. interference of endocrine, nutritional and metabolic rhythms with renal chronobiology; 7. erythropoietin circadian rhythms; 8. age influence upon renal biorhythms. Time series of data regarding urinary elimination of water, electrolytes, hormones, trace elements and metabolites were rhythmometrically analysed and statistically processed under normal and pathological conditions, in either experimental or clinical studies. Nephrology clinics also implemented chronobiological monitoring. Since the late 1990's special attention has been paid to blood pressure circadian rhythms in both adult and pediatric medicine, in kidney transplant and dialysis patients, as well as in subjects with chronic renal diseases. Kidney transplant rejection and immune response biorhythms were equally assessed. Tight phase relationships undoubtedly link internal biological clocks and external environmental systems working together in a complex complementary clock gear. Lacking or disrupted circadian oscillations represent a risk factor, while restoring and maintaining chronostructures protect health condition. The "one health" concept reveals true for the kidney microcosmos, too.

An Unsung Pioneer in the Turkish University Reform - ERICH FRANK

M. Şükrü Sever

Istanbul School of Medicine, Dept. of Nephrology, Çapa/ Istanbul-Turkey.

The period between the second World Wars was a time of budding interest in renal studies and one that closed in major geopolitical unrest, culminating in World War II. The life of Erich Frank (1884-1957) and his contributions to chronic kidney disease provide considerable insight into this period. Frank began his career in Breslau, Germany. His medical thesis and first publication were on the benign nature of orthostatic proteinuria. He went on to define and differentiate essential from renal hypertension, presented evidence for the role of the posterior pituitary in diabetes insipidus, and studied the first oral hypoglycemic agent. As all clinical scientists then, Frank also contributed to other fields of medicine. When Germany turned to Nazism, Frank moved to Turkey, where he was appointed co-chair of the Department of Medicine of the newly established Istanbul University. For the next 23 years, he trained a new generation of modern physicians and laid the foundation of several medical disciplines in Turkey. As author of the first Turkish textbook of nephrology and a teacher who inspired his students, some of whom went on to become the first generation of Turkish nephrologists, Frank was a pioneer in nephrology who helped establish the discipline in his adopted country. Considering his many contributions to the other fields of internal medicine, e.g. hematology, endocrinology, rheumatology, and neurology and also his leadership in academic life, Erich Frank was an unsung pioneer in the Turkish University reform.

The Mysterious Life of Jeronimus Ruscelli and His Contribution to Nephrology (1504-1566)

Guido Bellinghieri[1], Guido Gembillo[2], Vincenzo Savıca[3], Domenico Santoro[4]

1. University of Messina, Italy
2. University of Messina, Unit of Nephrology and Dialysis, Department of Clinical and Experimental Medicine, Messina, Italy
3. A. Monroy Institute of Biomedicine and Molecular Immunology, National Research Council, Palermo, Italy
4. University of Messina, Unit of Nephrology and Dialysis, Department of Clinical and Experimental Medicine, Italy

Jeronimus Ruscelli was a mysterious humanist of well-known fame. He was born in Viterbo between 1504 and 1518 and died in Venezia in 1566. Very little is known about Ruscelli's life, but from his extensive literature production, we can assume that he was endowed with remarkable intellectual capabilities and a propensity to pursue polyhedral interests. He has been known by different pseudonyms, among which Alexius Pedemontanus. Under this name, he wrote several books that gained great popularity, being reprinted in several versions and languages.

From a young age, he developed a strong interest in classical studies, attending the court of Cardinal Marini Grimani at Utini. After completing his studies at the University of Padua, he contributed to forming a humanistic academy, called the Accademia dei Sdegnati (the scornful) in Rome . After his prolific experience in Rome, he moved from Rome to the Neapolitan residence of the Marquis Alfonso D'Avalos. Here, Ruscelli formed an "Academy of Secrets" consisting of a group of humanists and noblemen with extensive culture, different experiences but similar interests. This secret academy represents the first recorded example of an experimental scientific society.

During these prolific years, he wrote one of his masterpieces, "The Secreti", an important historical-documentary manual of great value, with the pseudonyms of Alexius Pedemontanus. This book had as its primary purpose to use the secrets kept in nature, using occult techniques revealed through the prescription of recipes or alchemical formulas. In this masterpiece, the author suggests therapies for the most varied diseases, claiming in most cases to have been tested experimentally in the presence of witnesses in at least three clinical cases and successfully. This is an Aristotelian memory method mainly based on the principle of provability and repetition so that they could be catalogued as scientifically valid proofs. From the over a thousand recipes reported in the 1567 edition, "The Secreti Novi", which have been extrapolated, the substances used were the most varied and sometimes curious. According to Ruscelli, the recipes of this updated version of the book were "easy for everyone to do, of minor expense, and useful to all kinds of people."

The topics of this masterpiece range from general medicine suggestions to more specialistic indications, with a great variety of recipes and treatments of nephrological and urological interest.

What Does the Most Celebrated and Pioneer Ottoman Physician Şanizade Mehmed Ataullah (Shānī-zāde Meḥmed ʿAṭāʾ Allāh) Efendi Say on Anatomy, Physiology, Diseases, and Surgery of Urinary System: A Glance at *Hamse-i Şanizade* or *Kanun-ı Şanizade* (*Khamse Shānī-zāde* or *Qānūn Shānī-zāde*)

Ayşe Balat[1], Ahmet Acıduman[2]

1. Department of Pediatric Nephrology, School of Medicine, Gaziantep University, Gaziantep, Turkey
2. Department of History of Medicine and Ethics, Faculty of Medicine, Ankara University, Ankara, Turkey

Objectives: *Hamse-i Şanizade (Khamse Shānī-zāde)* is the most important work written by Şanizade Mehmed Ataullah Efendi (1769 or 1771 – 1826), an Ottoman *kadı (qāḍī)*, physician, historian, polymath and polyglot, about medicine. This work consists of five books. His first book, *Mirʾat al-ebdān fī tesrīḥ aʿḍa al-inṣān,* is on anatomy. The second book, *Uṣūl al-ṭabīʿa,* deals with physiology issues. In his third book, *Miʾyār al-eṭıbbā,* there is information about diseases and their treatments. These three books were published together in Istanbul in 1820. The fourth book, named *Qānūn al-cerrāḥīn*, which deals with the surgical treatments of diseases, was published in Cairo, after his death, in 1828. The fifth book, *Mīzān al-adviye*, is a pharmacopeia. This study aims to examine the information about the kidney and bladder anatomy, physiology, diseases and their medical and surgical treatments in *Hamse-i Şanizade*.

Methods: The first three books of *Hamse-i Şanizade* published in Istanbul in 1820 and the fourth book published in Cairo in 1828 were examined. The sections related to our study were first transliterated into the modern Turkish alphabet, then translated into English and evaluated. The obtained information is presented in the Results section and then discussed.

Results: In the first book of *Hamse-i Şanizade,* kidney anatomy is discussed under the headings "fī tashrīh al-kulā" and bladder anatomy "fī tasrīḥ al-mathāna". In the second book, the formation of urine is under the title of "fī infirāz al-bawl", while the exit of urine from the kidney and its discharge from the bladder are included in the sections titled "fī khurūc al-bawl ʻan al-kulā" and "fī indifāʿal-bawl ʿan al-mathāna". In the third book, kidney inflammation (nephritis) and its treatment are discussed under the title of "iltihāb kulā", while kidney and bladder stones and their medical treatments are explained in detail under the title of "ḥaṣāt kulā ve mathāna". In the fourth book, the types and treatments of urinary retention (ischuria/suppression of urine) are discussed under the title of "fī iḥtibās al-bawl", while the types, cause, symptoms, prognosis and surgical treatments of bladder stones are written in detail under the title "fī ḥaṣāt al-mathāna".

Conclusions: *Hamse-i Şanizade*, which is one of the important works written by Şanizade Mehmed Ataullah Efendi in the first quarter of the 19th century, and accepted as one of the first gates to the West in the field of medicine in the Ottoman Empire, and played a pioneering role in the modernization of Ottoman-Turkish medicine, contains and reflects the contemporary knowledge of its own period about the urinary system anatomy, physiology, diseases and their medical and surgical treatments.

Utility of Urine: From Antiquity to the Moon

Vincenzo Savica

Accademia Peloritana dei Pericolanti at University of Messina

In the ancient time urine was considered a sacred element related to Hindu's and Tantric religious traditions. It was not considered as a waste product of the body but a distilled product selected from the blood and containing useful substances for body care.Sanscrit book Shiwambu' Kalpa Vidhi, 5000 years BC, reported urine advantages and Sumerian doctors too (4000 years BC). Assiro-Babylonian reported that woman urine mixed with acool were used to identifie pregnancy status; Egiptians identified diabetes from urine and in Erbes papyrus (1552 BC) was reported urine excess as diabetic nephropathy. Essenians and Jewish Cristians used urine for body massage. Galeno suggested urine use to care burms, inflammation and skin disease while Ippocrates cured gonorrhea and tubercolosis.Theophilus in Bizantium, Paracelsus,Diodoro from Sicily and Catullo were supporters for urine use. In 1773 urea was isolated from urine by M. Rouelle and in 1828 it was synthesized by F.Wohler. In the last century it was identified as relevant component of urine and it was suggested for its bactericidal properties ,protein synthesis, liver tumors regress,infections,asthma,hypertension and AIDS. Urea is considered an important substance for studying kidney function.Urea is present in sweat as a key molecule of the Natural Moisturizing Factor (NMF) in epidermis modulating DNA synthesis of epidermal cells throught gene regulation.Today astronauts produce 23 liters per day of drinking water reutilizing urine and shuttle humidity. Now it was discovered that urea from human urine could be a great building material for future moon bases. Infact urea obtained from urine of astronauts could be an accessible superplasticizer on the moon for lunar geopolymer by mixing it with regolite and water/ice present on the moon to build flexible and resistant structures plasticizing the concrete. This is another teaching of Eraclitus of Ephesus that he said "Nothing is created, Nothing is Destroyed Everything is Transformed".

History of Kidney Transplantation in Turkey: From Past to the Future

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Organ transplantation is the definitive treatment option for end-stage organ failure. Solid-organ transplantation in Turkey began with two heart transplants in 1968, both of which, unfortunately, were unsuccessful. By the early 1970s, experimental studies on liver transplantation had already been initiated by our team.

Following these attempts, the first living related kidney transplant in Turkey was conducted on November 3, 1975 for a 12-year-old male patient from his mother by our team. It is important to note that, at that time, there were no legislation governing transplant activities in Turkey. In an attempt to start a deceased-donor donation program in Turkey, our group contacted and worked in cooperation with international networks, including the Eurotransplant Foundation (Leiden, The Netherlands) and the South Eastern Organ Procurement Foundation (Richmond, Va, USA). Thus, we were able to perform the first deceased-donor kidney transplantation, which was carried out at our center on October 10, 1978, using an organ supplied by the Eurotransplant Foundation.

In fact, this was a major achievement. Back then, no one was using deceased kidneys older than 12 hours cold ischemic time. The ones we received had a cold ischemia time of over 24 hours. However, these kidneys were used with a high success rate and following these operations, I proved that deceased kidneys with more than 100 hours cold ischemia time could be successfully transplanted.

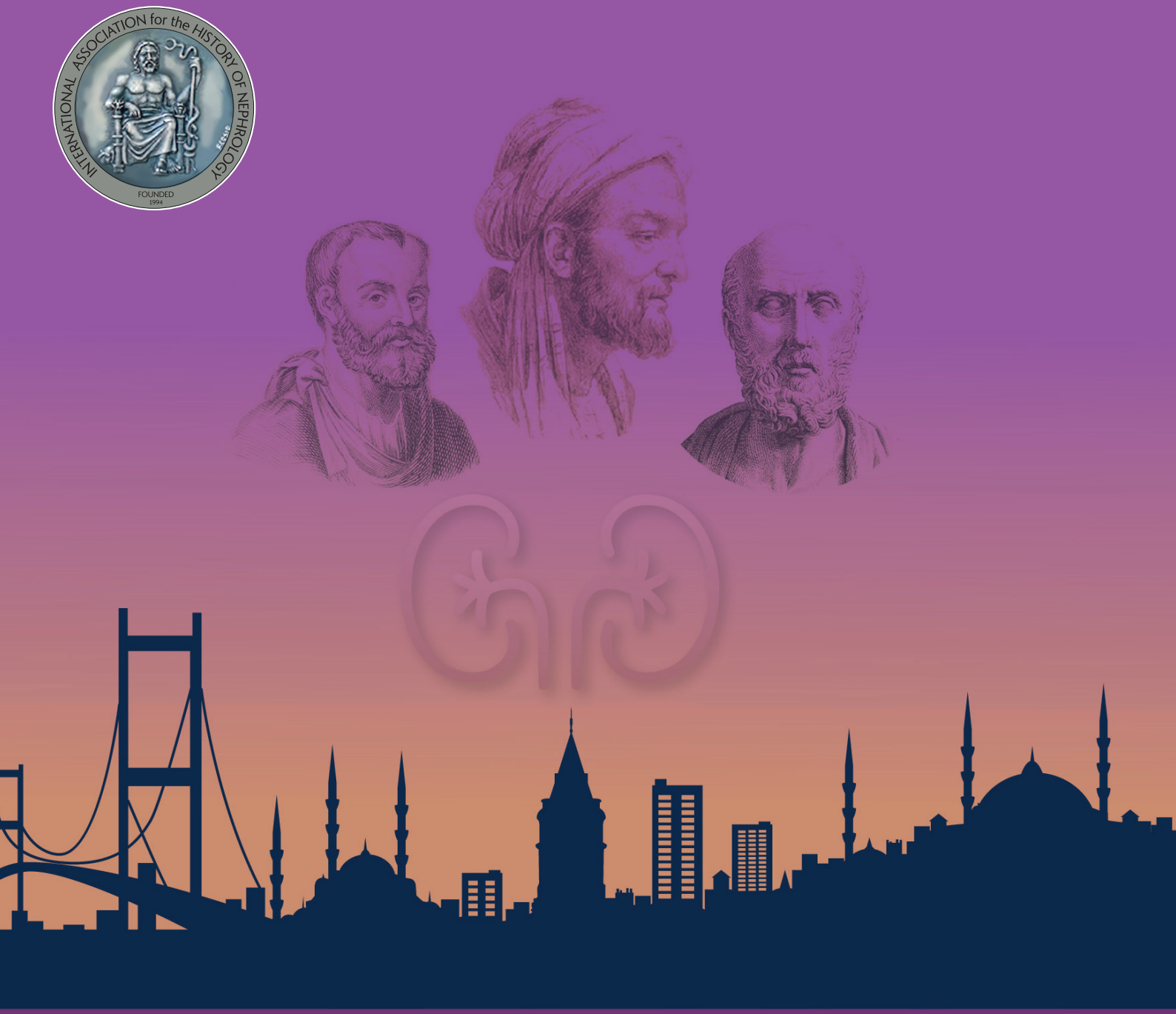
It became apparent that it would be necessary to have legislation to govern transplantation activities and, as a result of our efforts, the law on harvesting, storage, grafting, and transplantation of organs and tissues was enacted on June 3, 1979 and later that year on July 27, 1979. This law was deemed progressive enough to be used as a model by many other countries and has been a milestone in the development of organ donation and transplantation in Turkey.

Once the Law No.2238 was passed, we were finally able to begin deceased-donor transplants in Turkey, and performed the first local deceased donor kidney transplantation on July 27, 1979, just over one month after the law was approved. We also worked with the Turkish public to provide education about the benefits of and social responsibilities involved in organ donation. In addition, we founded The Turkish Organ Transplantation and Burn Treatment Foundation in 1980 to advance these interests. Standardized “Organ Donation Cards” were printed as well, with the aim to promote donation and bring this concept to life in peoples’ minds. On January 21, 1982 some new articles were added to Law 2238, with the enactment of Law 2594, which allowed for deceased donation without consent from next-of-kin.

This was followed by a period of many groundbreaking events. The first successful deceased-donor liver transplantation was performed in Turkey, in the Middle East and in Northern Africa on December 8, 1988 again by our team. This was followed on March 15, 1990 with the first pediatric segmental living-related liver transplant in Turkey, the region, and in Europe and immediately succeeded by the first adult segmental living-related liver transplant (left lobe) in the world on April 24, 1990. On May 16, 1992, we performed a combined liver-kidney transplant from a living-related donor, which was the first operation of its kind anywhere in the world.

Transplantation activities should be tailored with careful selection of both donors and recipients within transparency and considering ethical and legal aspects. According to our donor selection criteria, all candidates should be relatives (up to the fourth degree) or the spouse of the recipient and ≥ 18 years old. Between November 1975 and May 2022, 3330 kidney transplants (389 pediatric, 2941 adult) were performed and 705 liver transplants were performed (337 pediatric, 368 adult) from living related and deceased donors according to our donor selection criteria.

In 2001, the Ministry of Health established the National Coordination Center as an umbrella organization to promote transplantation activities, especially for deceased donor organ procurement. Transplantation activities are accelerating day by day throughout the country, but deceased donors are still far below the desired rates. Efforts to increase awareness continue through the media, schools, and many public and private institutions. Improvements in legislation, education and coordination are key factors for increasing the quality and the quantity of transplantation activities in Turkey.



MINI-LECTURES

Trends in Renal Replacement Therapy in Bosnia and Herzegovina in the Last Decade

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The Renal Registry (RR) of Bosnia and Herzegovina was established 2002,with aim to follow up the trends of Renal Replacement Therapy in Bosnia and Herzegovina.The prevalence of RRT in Bosnia and Herzegovina is rising steadily.The aim is to present the epidemiology and treatment of all aspects of RRT in B δ H in period 2010 -2020.The demographic data,prevalence,incidence,type of RRT ,cause of ESRD,were obtained from the questionnaires from 29 dialysis centers.The number of patients treated by RRT increased steadily from 2488 patients in 2010 to the 2693 in 2019.COVID-19 was started in 2020 and number of patients decreases to 2543 patients.The prevalence has increased from 709,2 pmp in 2010 to 720,2 in 2020 Incidence (new patients) in 2010 was 130,6 pmp and incidence ratein 2020 was 115,0 and there were 406 new patients(day 1).The mean age for new patients increased from 60 years in 2010 to 63,5 years in 2020 and population over 75 years rate from 9,79 % to 13,5%.Most ESRD patients in Bosnia and Herzegovina are undergoing intermitent hemodialysis (92%) while some patients treated (8%) by PD and transplantation.The most significant cause of ESRD in 2010 was chronic glomerulonephritis (543 patients)followed by pyelonephritis(490 patients). and diabetes meellitus 393. The number of DM patients increases and in 2019 was 546 in 2020 479 patients.. COVID -19 affect ESRD patients and they had worse outcome.

Transplantaion rates decreases and only 4 transplantaion done in 2020 and 2021.In Bosnia and Herzegovina we follow up 266 patients with functional graft and 54 patients (20,3%) affected with COVID-19 and 11 patients died (20,37%). From 8 dialysis center in 2020 we have got data for COVID-19.From 622 patients ,COVID -19 affected 361 patients (58,04%) and 75 died (19,38%).

In 2020 547 patients on RRT died and it has been high mortality rate (17,7%).The need for RRT in Bosnia and Herzegovina is increasing in last decade but COVID-19 has effect on mortality on RRT.

The preventive measures are necessary to prevent ESRD and also to decrease the number of patients on dialyisis.

Emigration of Scientists From Czechoslovakia During Soviet Domination

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Background : Czechoslovakia was established after the First World War in 1918 as a common state of the Czechs, Moravians and Slovaks. After several transformations from Czechoslovakia, two separate republics - the Czech and the Slovak Republic were established in 1993. In my presentation I am going to focus on the years of the Prague Spring (PS), and on the period after the invasion of Warsaw Pact Troops (WPT) into Czechoslovakia (1968-1989) when the decisive impact of the Soviet Union continued for the next 20 years.

Objectives: To analyze the influence of Soviet domination in Czechoslovakia on important scientists of various disciplines after 1968.

Methods: The invasion of WPT into Czechoslovakia and the period of cruel normalization, had a very negative impact on the lives and work of the Czechoslovak people, especially on those with higher education. Many prominent scientists, physicians (nephrologists, cardiologists and others), writers, artists, journalists, politicians, and others have left the Republic. It was a political emigration from behind the Iron Curtain.

Results: List of several scientists-emigrants.

From the medical field: Professor Jan Brod, was the founder of Czech modern clinical nephrology. He was one of the signatories of a political manifesto, "Manifest 2,000 Words" (1968). In August 1968 Brod emigrated to the Federal Republic of Germany.

Professor William Ganz was the world-famous cardiologist of Slovak origin, born in Košice. In 1966 he emigrated to the USA. He was a co-inventor with Jeremy Swan of the Swan-Ganz balloon flotation catheter. From the field of art (Škvorecký, Prečan, Lustig, Kohout, Landovský, Kundera and others), from the political field (Pelikán, Tigrid).

Conclusions: The main reason for emigration of scientists from Czechoslovakia was suppression of democracy - the PS in 1968 by the invasion of the WPT and the continuation of Soviet domination.

Consideration of Comparing Empirical and Evidence-Based Knowledge on Nephrology in the Example of Ahi Çelebi's 15th Century Turkish Treatise on the Urinary Calculus

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The evidences and arguments that Ahi Çelebi put forward in his treatise on urinary tract stones 533 years ago in a period when there was no modern medical technology suggest that he was a prudent and experienced physician. His commentaries about the etiology, preventive methods, signs and symptoms and prognosis of the urinary tract stones, and treatment methods indicate that he made practical and effective use of the scholarly methods of his time- observation, visual inspection, physical examination, analogy, classification, discussion- in the most appropriate way. Were these methods sufficient to reach some information that we attain with advanced technology today? We come across such information in his treatise that we wonder how these results were achieved. Çelebi's own contributions can be revealed by comparing the texts of previous authors. For example, the treatise is more comprehensive than the section on kidney and urinary bladder stones in Ibn Sina's Canon, which greatly influenced the classical period Ottoman medicine.

In this study I will attempt to compare examples of knowledge based on practical experience in the past with today's evidence-based knowledge. In this context, I would like to open for discussion some notable information in Ahi Çelebi's treatise. The treatise contains extensive information about kidney and bladder stones. The etiology, symptoms and signs of kidney and urinary bladder calculi are described in detail in the treatise. The role of gender and age in stone formation is discussed in the treatise. The relationship between nutrition and stone formation is explained at length. Ahi Çelebi notes the differential diagnosis between kidney and urinary bladder calculi, as well as kidney colic and abdominal pain. Dietary regimen is mentioned as prophylaxis against calculus formation. Various drugs effective in the treatment of the urinary tract stones and related ailments are recommended. The humoral theory is used to explain and interpret the empirical data. Can the medical information explained by humoral pathology, which is the philosophy of the ancient period, be expressed with today's medical views?

On the occasion of this study, I also want to draw attention to the importance of adequate medical observation, medical history taking and physical examination in clinical practice that loose importance in the face of rapidly developing medical technology. Insufficiency in revealing the clinical picture often originates from the disregard of the above mentioned information acquisition methods, relying mainly on laboratory and imaging techniques.

Nephrology Before NEPHROLOGY in Poland

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As a separate field, nephrology crystallised in the 1950s. Poland's first clinic established in Wrocław (1958) was managed by Zdzisław Wiktor. During ERA-EDTA and IAHN congresses, Polish authors presented precursors of nephrology: Thomas of Wrocław, Simon Sirenius, Jędrzej Śniadecki, Marceli Landsberg, Henryk Gnoiński, Witold and Tadeusz Orłowski, Andrzej Biernacki. This publication depicts the next giants who contributed to the development of nephrology in Poland.

Tadeusz Browicz (1847-1928), born in Lviv, studied medicine at the Jagiellonian University in Krakow. He headed the Department of Pathological Anatomy and served as Dean and Rector. In his publications he discussed anatomical changes in the kidneys in the course of acute inflammatory lesions in the renal parenchyma. With Kupffer, he is considered the discoverer of Browicz-Kupffer cells. He died in Krakow.

Anastazy Landau (1876-1957), studied medicine at the Imperial University of Warsaw, at Carl von Noorden's clinic in Frankfurt am Main, and Nathan Zuntz's Department of Physiology in Berlin. After World War II, he worked at the Institute of Improvement and Specialisation of Medical Personnel in Warsaw. He authored papers on renal physiology, chronic renal failure, glomerulonephritis, and nephrosis. He made the first Polish description of a pheochromocytoma, which was operationally verified in 1935. He died in Warsaw.

Stefan Dąbrowski (1877-1947), born in Warsaw, where he studied medicine at the Imperial University. He worked for Armand Goutier at the Sorbonne, where he researched medical chemistry. After World War I, became professor at the Department of Medical Physiology and Chemistry at the University of Poznań where he was Dean and Rector. He published papers on kidney function, including diffusion and absorption in the kidney, and the chemical nature of urochrome. He died in Poznań.

Although published in Polish, their works were based on the cooperation with European universities. Therefore, it is necessary to present the researchers to a wider group of historians.

Remedies for Kidney Ailments in "Physica" by Hildegard von Bingen (1098-1179)

Ioannis Stefanidis[1], Theodoros Eleftheriadis[2], Maria Efthimiadi[3], Maria Kaliantzidou[4], Athanasios Diamandopoulos[5], Elias Valiakos[6]

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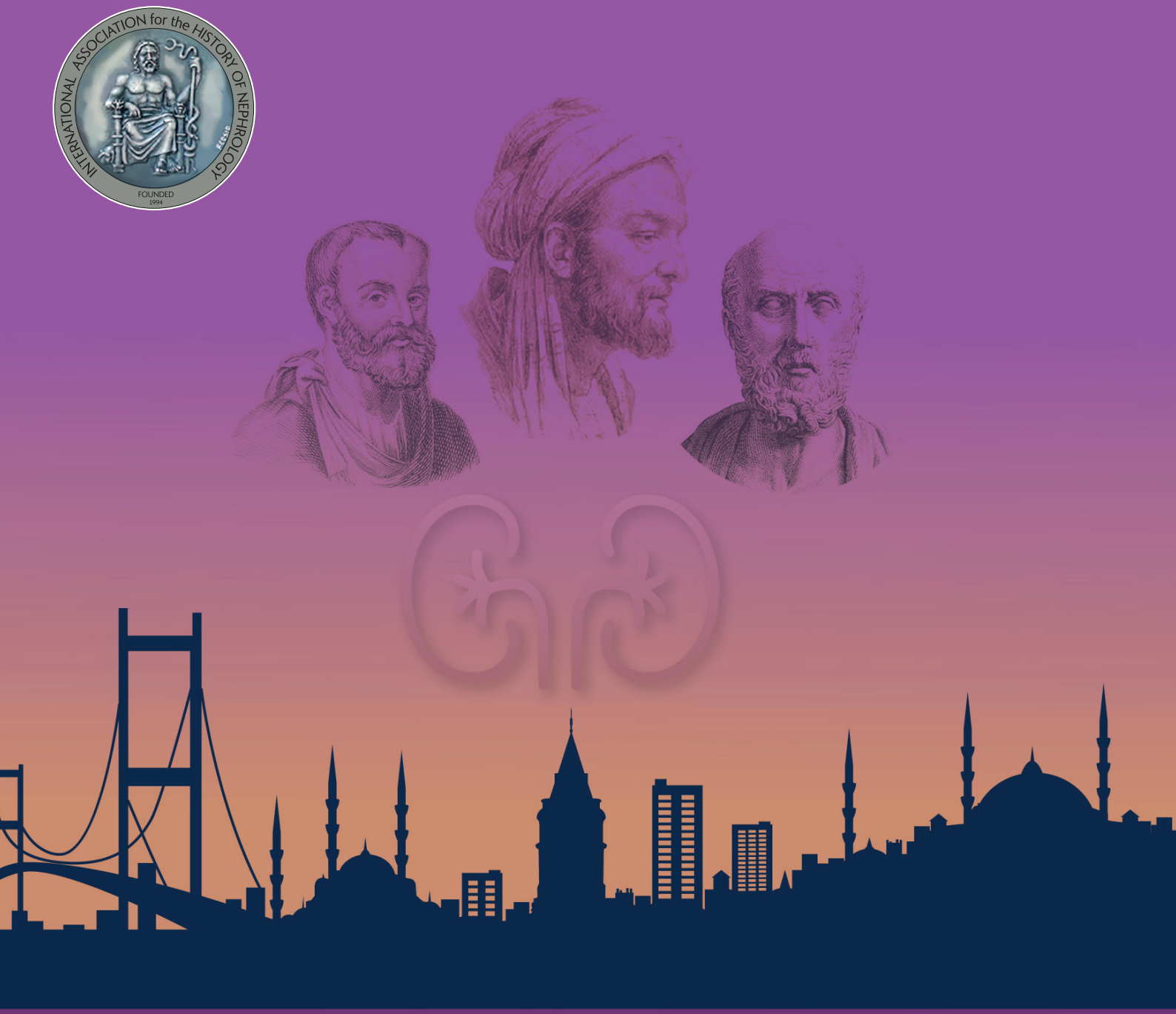
Introduction: Hildegard von Bingen (Hildegardis Bingensis; Saint Hildegard) also known as or "Sibyl of the Rhine" (1098–1179 AD), was a Benedictine abbess, musician, poet, writer, counselor and healer [1–4]. As the tenth child of a wealthy and devout family at the age of eight she was given into the care the anchoressand noblewoman Jutta von Spanheim, in the Benedictine monastery of Disibodenberg. At an age of 38 she was elected abbess. She was one of the very few female writers of her age, with her interests ranging from medicine, natural history, and cosmology, to theology, philosophy, and music. As an influencial personality she was advisor of kings, princes and bishops. Hildegard von Bingen's medical work is collected in two books (1152-1163 AD): "Physica" and "Causae et curae". The aim of out paper is to investigate the characteristics of the nephrology oriented remedies in "Physica" and compare them with the respective remedies in "de Materia Medica" (1st cent AD) by Dioscorides Pedanios Anazarbeus.

Methods: "Physica" is a collection of nine books with an inventory of plants, trees, elements, stones, animals, and metals, describing their natural therapeutic properties. We studied all 230 plants and 63 trees in this treatise and recorded all nephrology related remedies. In addition we recorded the treatment indications of the same remedies in "de Materia Medica". As nephrology oriented was defined every material with nephrology related pharmacological action (diuretic) or indication (dysury, nephritis, stones, sand, dropsy). The findings are given by plain descriptive statistics.

Results: Among all plants there were 15 (5.1%) of nephrological interest (11 within plants and 4 within trees). Only some of the natural ingredients were found with the same indication in the ancient text (9 out of 15). The nephrological treatment indications found included dysuria, nephritic pain and lithiasis in 87% and dropsy (oedema) in 13.0% - comparable with 10% in the Materia Medica.

Conclusion: "Physica" gives a reliable picture of medicine in the 12th c. as it was practiced by the clergy for generations. It also incorporates Hildegard's own observations and contemporary folk remedies. This fact is supported by the limited homology of nephrological remedies in Hildegard's "Physica" with the respective remedies in "de Materia Medica".



PANEL

History of Adult Nephrology in Turkey

Ali Bascı

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Nephrology in Turkey has emerged in parallel with the development of universities since the 50s. Although the establishment of a medical school at Istanbul University, Turkey's first medical school, dates back to ancient times during the Ottoman Empire, it has gained a university identity in terms of the western sense since the reform carried out in 1933. Ankara Faculty of Medicine was established in 1946 and Ege University was established in Izmir in 1955. Nephrology, which is a new subdivision in the world, initially started to serve in the field of clinical nephrology and fluid electrolyte problems in the internal medicine clinics of these medical schools. The teaching staff, especially in Istanbul and Ankara Universities, expanded with the contribution of scientists, most of whom were of Jewish origin, who escaped from Germany during the Second World War, and scientific development was achieved in every field. Later, after graduating from these faculties and receiving internal medicine residency training, many young scientists became fellows in the field of nephrology in the USA and Europe in the 50s and received training. Muhlis Özen, Necdet Koçak, Kemal Önen, in Istanbul, Cavit Sökmen, Şali Çağlar in Ankara, Saim Yeğinboy in Izmir, are the first examples to the physicians those have received training in the field of nephrology in Western countries. Considering that, Dr Özen in Istanbul and Cavit Sökmen in Ankara had written the first nephrology textbooks in 1958, we can accept the beginning of the History of Nephrology as 1958. In the late 70s and early 80s, kidney biopsies were being performed using the Vim Silverman needle in all the three medical schools and Hacettepe School of Medicine, established in 1967, and contemporaneously these biopsies began to be examined almost simultaneously with light microscopy, immunofluorescence and partially electron microscopy in some cases. In the treatment of acute renal failure, peritoneal dialysis (PD) in the form of peritoneal lavage started to be performed in Istanbul and Ankara in 1964 and in the Izmir in 1970. As PD solutions began to be manufactured industrially, PD was sometimes used palliatively in chronic patients who could not undergo hemodialysis. After 1990, chronic ambulatory PD programs were put into practice. After 1972, hemodialysis (HD) treatments had been started to be practiced in Istanbul, Ankara and Izmir respectively in intervals of one or two years, being first in acute cases and later in chronic cases. The numerical development of regular chronic HD units could only have started in the 90s, after the problems of trained healthcare workers supply and social security reimbursement, gradually resolved . The first two renal transplantations (RTx) were performed from a living donor in Istanbul in 1968, but these were unsuccessful. In 1975, Prof. Haberal put into service a successful RTx center in Hacettepe School of Medicine, and in 1976 the first successful RTx from a cadaveric (deseased) donor which was supplied from Eurotransplant was performed. After 1987, RTx programs started to work almost contemporaneously in Istanbul, Ankara, Izmir and expeditiously spread to hospitals in other cities. In the same years, a non-governmental organization together with a cadaver sharing system was established, and then this function was handed over the ministry of health to be carried out until present.

History of Pediatric Nephrology in Turkey

Ayfer Gür Güven

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Erich Frank started working in Istanbul University in 1933, has been inspiration for Turkish nephrologists and created the nephrology discipline and trained the first-generation nephrologists. These pioneers transferred the spirit to the next generations.

In the 1960s, the Turkish pediatricians have also been interested in nephrology and enhanced their Pediatric Nephrology (PN) education in Europe and The United States. These pioneers created PN departments around the country.

Ihsan Dogramaci, the great mentor has paid immense attention and initiated the implementation of PN in Türkiye.

In 1983, PN achieved the status of a subspecialty in Pediatrics in Türkiye. The founding of the Turkish Society of Pediatric Nephrology (ÇND) in 1990 provided the basis for standardization and institutionalization of training; which also accelerated the development of clinical studies and experimental research. Today Turkiye has 107 pediatric nephrology centers and 265 well-trained specialists additionely 28 pediatric hemodialysis units, 39 pediatric peritoneal dialysis units and 26 pediatric transplantation centers. The first pediatric hemodialysis practice in Turkey was carried out in Hacettepe in 1974, first living donor kidney transplant to a child patient was performed in Hacettepe in 1975, the first pediatric continuous ambulatory peritoneal dialysis (SAPD) was performed in Ankara University in 1989.

Since 1996, bi-yearly national congresses with international participation, training seminars in different cities, monthly case discussions are being held. In 1998, the South Eastern European Pediatric Nephrology Working Group been formed with the support of Ihsan Dogramaci created collaboration among Balkan countries. Since 2000, a council member from Turkiye has been selected continuously to the executive board of ESPN and currently it is led by President Rezan Topaloğlu.

In 2005, 39th ESPN congress and in 2009 the 5th International Pediatric Transplantation congress were held in Istanbul. ÇND continues its institutional, scientific, educational and social duties with increasing momentum and devotion.

ORAL PRESENTATIONS

Urosepsis a Leading Cause of Death in Acute Kidney Injury of Roman Pontiffs: A Historical Review From John XXI to John Paul II (1277-2005)

Natale Gaspare De Santo[1], Carmela Bisaccia[2], Luca Salvatore De Santo[3]

1. Professor Emeritus Università della Campania Luigi Vanvitelli, Naples, italy
2. Istituto Mazzini, Naples, Italy,
3. Department of Translational Medical Sciences, Division of Heart Surgery D, University of Campania Luigi Vanvitelli, Naples, Italy

Acute Kidney Injury due to crush-syndrome was the cause o death of Pope John XXI in 1277 and urinary sepsis with anuria was a cause of death of Pope John Paul II in 2008. The study was devised to investigate papal deaths due to AKI a topic for which scarce data exist.

A total of 21 of 78 popes (26.9%) ruling between the years 1277-2005 died of AKI. Sepsis was identified as the leading cause of Acute Kidney Injury and death in 20 of 21 (95.2%) popes. Age at death of the 21 popes was 69.4 ±2.26 years (Mean ±SE). Six of them (28.6%) died of stroke.

Sepsis, which attracted the interest of many ancient and modern investigators has a complex pathogenesis far from being fully understood, and its guidelines for therapy are still progressing, which explains the high number of papal deaths due to Acute Kidney Injury.

An Analysis of Historical Figures with Depression and Kidney Disease: Current Co-Morbidity Studies in Light of Ancient, Medieval, and Early Modern Descriptions of Disease

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Recent studies suggest a strong link between chronic kidney diseases and brain dysfunctions such as depression and cognitive/memory problems. In 2013, Palmer, et al., reviewed the high prevalence (about 20%) of depression in kidney disease patients; the reason for this connection is unclear. However, a review of medieval and early modern historical figures with aspects of both kidney disease - gout and ascites/edema (dropsy) - and depression (melancholia) shows that the conditions were observed together in the past.

The diseases of gout, dropsy, and melancholia were all believed to be caused by imbalances of one of the four humors detailed in the Hippocratic/Galenic Humoral Theory that held sway in ancient, medieval, and early modern medicine. While dropsy, melancholia, and gout were seen to be caused by different humors (phlegm, black bile and phlegm/yellow bile, respectively), documentation exists that the conditions existed in the same person at once. Case studies will be used to detail a previously-unremarked combination of current kidney disease and depression co-morbidity in historical writings.

For example, the poet Giovanni Boccaccio was known to have suffered from gout and melancholia, several descendants of the Portuguese Avis and Spanish Trastamara dynasties, known for melancholia and madness, also suffered from gout and dropsy, and an interesting historical case series can be seen in Alderson's review of causes of death for sultans of the Ottoman Empire. These historical records suggest an association of dropsy, gout, and melancholia paralleled in recent studies of kidney disease symptoms and depression.

In this presentation, the authors will review the current state of medical research on the co-morbidity of kidney disease and depression, share descriptions of dropsy, gout, and melancholia in the Galenic Humoral Theory, as well as case studies of sufferers of these conditions, and posit not-previously-noted data supporting co-morbidity observations in historical writings.

Researches on Hunger Disease in the Warsaw Ghetto in 1940-1942 Ethical and Nephrological Aspects

Jarosław Sak

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Objectives: The aim of the work is to present the historical context as well as ethical and nephrological aspects of research on hunger disease conducted by a team of Jewish doctors in the Warsaw ghetto in 1940-1942.

Methods: The method of analyzing the historical source material was used: "Hunger disease: clinical trials of hunger in the Warsaw Ghetto in 1942" (E. Apfelbaum [ed], American Joint Distribution Committee, Warsaw 1946). The analysis

Results: A group of doctors working in the Jewish ghetto in Warsaw conducted research on hunger disease from October 1940 to July 1942. Them observations created a collective scientific work co-authored by a group of Jewish doctors doomed to extermination. Most of the members of the research team died during or shortly after the final destruction of the ghetto. The collected material in the form of typescript was prepared and sent to Professor Witold Orłowski. The editor-in-chief of the edition, Dr. Emil Apfelbaum survived the war (died in 1946 in Warsaw).

The research on hunger disease included autopsy material - 3,282 bodies were examined. Extensive atrophic changes in organs were found, including kidney changes in 79% of post-mortem cases. The smallest kidney weight in people aged 20-60 years was 65 g. Histopathological examinations of the sectioned organs were also carried out. A common type of kidney lesion was glass-droplet lesions found in the tubules epithelium. The effects of the administered protein diet on blood pressure, heart rate, and urinary excretion of urobilinogen and chloride were investigated. Urine chlorides were determined using the Volhardt method. The acid-base balance and water balance were also studied. Therefore, non-protein nitrogen (Parnas-Wagner method), urea (Hueffner-Ambard method), uric acid (Folin-Schaffer method), ammonia and amino acids (Folin method) as well as creatine and creatinine were determined in urine.

A Story of Serendipities: From Phlorizin to Gliflozins

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Humankind has acknowledged diabetes since ancient times. However, it was only late 1800's we realized the primary organ for blood glucose regulation was the pancreas. The 20th century witnessed insulin purification, which revolutionized the treatment of diabetes maigre. Development of oral anti-diabetic drugs (OAD) followed. Sodium-glucose cotransporter-2 (SGLT-2) inhibitors or gliflozins are the last class. Their unique cardio and renoprotective effects separate them from other OADs.

Here we present the history behind the development of SGLT-2 inhibitors, arguably the hottest and the most pleasant topic in nephrology.

The first serendipity
Koninck and Stas were assistants of Prof. Van Mons, a renowned expert in pomology. The duo isolated a crystalline glycoside called phloridzin (phlorizin) from the bark of apple trees while working at their boss's nursery. Koninck published the discovery in German in 1835.

The second serendipity
After a half-century, Prof. von Mering decided to administer phlorizin to dogs. His motive is not clearly understood. He and Oskar Minkowski initially observed polyuria than glucosuria.

Insightfully, von Mering postulated phlorizin affects kidneys. In 1887, he reported phlorizin-induced glucosuria in diabetics.

The third serendipity
Phlorizin causes several gastrointestinal side effects and has poor oral bioavailability. The first phlorizin-based drug to enter trials was T-1095. The first clinically available gliflozin is dapagliflozin, receiving EMA and FDA approvals in 2012 and 2014, respectively.

FDA requires all OADs to have trials addressing major cardiac adverse events after the notorious rosiglitazone experience. In 2015 EMPA-REG Outcome trial reported extremely satisfying results that no one expected. Supported by following trials and real-world data, all impactful guidelines have changed. Also, their impact on heart failure and chronic kidney disease seems to be independent of their anti-diabetic properties.

More than a hundred years after von Mering's original discovery, descendants of phlorizin are fastly becoming the most inspiring medicine for the 21st-century physician.

Ancient Wisdom in Pandemic Times: Socrates' Triple Filter Test

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Introduction: Primarily the most preeminent chapter of the 21st century is the outbreak of the global pandemic of Covid-19, with unique characteristics its alarming spread rate and the widespread of information. In the era of advanced information and communication tools, public understanding comes mainly from social media and consequently, this arises many conflicts regarding the prevention and treatment of the disease, shaping and constructing public opinion and reality. Paradoxically although vaccination against Covid-19 has proven its efficacy and safety it remains a profound issue of debate. Nowadays we navigate in social media sources to find the answers as Socrates was navigating in the ancient «agora» to give the answers by conducting the triple filter test.

Objective: Imaging an agitated anti-vaccinationist comes to Socrates and says:
-Socrates, I want to tell you some information about vaccination…
-Calm down before listening to what you have to say are you sure that everything you're going to tell me is true?"
-Well, this is a personal perception that comes mainly from social media.
-So you can not know if your information is true or not. Is what you're going to tell me good or not?
-You know that I am opposed to vaccination.
-And finally, do you think that this is useful?
-Well, I am not quite sure.
So dear anti-vaccinationists as Socrates would say If everything that you want to tell us you are not sure that is true, isn't good as you ignore all the "good" proven data, and isn't even useful rather harmful leading the public opinion to confusion and people to danger, why would we want to hear it?

Epilogue: In a pandemic crisis where various media construct reality, ancient wisdom can promote a mediating or even a filtering effect between information and untrue, harmful and useless formation of personal perception.

50 Years of Kidney Transplantation in Rijeka and Croatia

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INTRODUCTION : In 2021, the Clinical Hospital Center Rijeka proudly celebrates 50 years since the first kidney transplant. At the end of the sixties of the 20th century, prof. Vinko Frančišković gathered a number of experts who were ready to make a big step forward in the field of transplant medicine. The establishment of a multidisciplinary team, the launch of a chronic hemodialysis program as well as an experimental surgical program were prerequisites for such an endeavor.

MATERIALS AND METHODS : After many preparations, the first successful kidney transplant was performed on Saturday, January 30, 1971, in Rijeka, Croatia and the former Yugoslavia. The recipient of the kidney was a 34-year-old patient, and the donor of the kidney was his mother. The left-sided donor nephrectomy was performed and the mother's kidney was implanted. Recovery was rapid and the patient achieved a good quality of life. The recipient died after 14,5 years from liver tumor with good transplant function.

RESULT AND CONCLUSION : Due to the continuity of work and good results, patients from all over the country began to come to our transplant center, and our experts went to other centers to help them establish new transplant centers (Zagreb, Sarajevo, Skopje). Due to its good and lasting results, the Clinic of Urology of the University Hospital Center Rijeka was appointed in 2007 the Reference Center of the Ministry of Health for kidney transplantation. As of December 31, 2020, we performed a total of 1,190 kidney transplants, of which 362 were from a living donor and 828 from a cadaveric donor. Kidney patients have certainly benefited the most from this program because kidney transplantation is the most effective method of treatment that significantly prolongs the life of this group of patients compared to other methods. However, the transplant program also led to the improvement of all professions involved in the program, and we can say that the development of the transplant program has led to significant advances in city of Rijeka medicine that can be traced to the present day.

History of Renal Transplantation in the Arab World

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The first successful renal transplantation in the Arab world took place in Jordan in 1972. Surprisingly, the kidney transplanted was from a non-heart beating deceased donor.

Many Arab countries started their transplantation programs in the 1970s and 1980s, but all have been from living related donors.

There were many obstacles among many countries to start or maintain their own local programs due to financial issues or social issues but most of them were able to overcome them.

Very few Arab countries managed to start deceased donor programs, notable among which is the Kingdom of Saudi Arabia. On the other hand Egypt which has the highest population and a very high rate of kidney transplantation has not been able to approve the cadaveric program till now due to religious and social issues.

Registry is still defective in many of the Arab world countries despite the huge experience in the field of transplantation.

Publications with Nephrological Thematology Appearing Diachronically in the PubMed Bibliographical Database

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Abstract: Publications with nephrological thematology appearing diachronically in the PubMed bibliographical database I. Stefanidis, T. Eleftheriadis, E. Nikolaou, E. Valiakos, M. Kalientzidou, A. Diamandopoulos Nephrology, School of Medicine, University of Thessaly, Larissa, Greece.

Introduction: Nephrology is a medical specialty, which in the last 50 years experienced very important scientific developments, which formally revolutionized clinical practice, namely renal biopsy, renal replacement therapy and transplantation. In addition understanding pathogenesis and clinic of renal disease also improves steadily, resulting in renewal of definitions, classifications and therapeutics in nephrology. In this context publications with nephrological content are also expanding. The aim of this bibliography-study was to analyze the publications, related to nephrology specific keywords, as they appear in the PubMed database.

Methods: Certain nephrology related keywords were applied: "nephrology", "acute renal failure", "renal biopsy", "hemodialysis", "peritoneal dialysis" and "renal transplantation" were applied as terms in PubMed. Instead of renal kidney was used as an alternative term.

Results: Nephrology as a term appears 141573 times in the database and beginning from 1946 its appearance is expanding in the last three decades. The term "acute renal failure" is found for the time in 1932 in one publication and in a total number 92278 of publications. Renal biopsy appears from 1943 in a total number of 15506 publications. Hemodialysis appears in 182730 citations for the first time in 1915 in human application. Peritoneal dialysis appears in 32266 citations for the first time in 1901 and 1946 in human application. One publication on renal transplantation appears in 1946 and the total number of publications related to renal transplantation is 106075.

Conclusion: According to the above findings there is a clear expansion of nephrological publications in the last decades. In addition, hemodialysis remains still the most frequent term used in nephrology related publications. Historical analysis the PubMed database is very useful as a tool to understand the research and publication trends in nephrology, as we approach to the new era of precision medicine.

A Study on the Sources of Chief Physician Kātib-zāde Meḥmed Refīʿ Efendi's *Risāla ʿIllat Mathāna,* or Did Kātib-zāde Actually Use the Works of European Authors as Sources?

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Objectives: The aim of this study is to find out the Eastern and Western authors/physicians quoted by Kātib-zāde Meḥmed Refīʿ Efendi (d. 1769), the chief physician in the Ottoman Empire, in his work *Risāla ʻIllat Mathāna,* and also to determine whether Kātib-zāde Meḥmed Refīʿ Efendi benefited from the views of the physicians he mentioned in his treatise, and if so, from which works he benefited.

Methods: In this study, the copy of Kātib-zāde Meḥmed Refīʿ Efendi's work named *Risālaʾi Rābiʿ fī al-Mathāna,* with the registration number T 3796/4 in the Turkish Manuscripts section of the Istanbul University Rare Books Library, was examined. The physicians belonging to the Eastern and Western world, mentioned by Kātib-zāde Meḥmed Refī' Efendi in that copy, were determined, and a literature search was conducted about them and their works.

Results: In his Risāla ʿIllat Mathāna, Kātib-zāde Meḥmed Refīʿ Efendi has mentioned the names of the eminent physicians of the Eastern World and quoted from their works such as: Avicenna (980–1037) and his work *the Canon of Medicine,* Najīb al-dīn al-Samarqandī (d. 1222) and his work *al-Asbāb wa l-ʿAlāmāt,* and lastly Ibn Māsawayḥ (d.857). He also mentioned the names of the Western world physicians and their works are Lazarus Riverius (1589-1655), Ioannes Fernelius (1497-1558), Petrus Forestus (1521-1597) and Amatus Lusitanus (1511-1568).

Conclusions: In his work, Kātib-zāde Meḥmed Refīʿ Efendi, has used *the Canon of Medicine* and the commentary on *al-Asbāb wa l-ʿAlamāt* written by al-Kirmānī as sources from the Eastern World. His main source from the western world was mainly Lazarus Riverius's *Praxis medica*, precisely from the section in this work named "Dysuria seu ardoris urine curatio". It is also seen that the other Western physicians Ioannes Fernelius, Petrus Forestus and Amatus Lusitanus mentioned by Kātib-zāde Meḥmed Refīʿ Efendi are actually the ones mentioned and quoted in that section of Lazarus Riverius's work.

Urinary System Problems in Al-Rāzī's Book *Men Lā Yaḥḍuruhu al-Ṭabīb*: Practical Advice for Those Who Cannot Access Physicians and Medical Recourses

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Objectives: Abū Bakr Muḥammad ibn Zakariyyā al-Rāzī is an important physician who makes theoretical and practical contributions to medicine in the history of medicine. al-Rāzī's book titled *Men lā yaḥḍuruhu al-ṭabīb* aims to provide a practical benefit to the general public. The work has been written for individuals who cannot access physicians, critical medical manuscripts, and medicines. The aim of this study is to bring to the literature and discuss the issues related to urinary tract problems in al-Rāzī's book titled *Men lā yaḥḍuruhu al-ṭabīb.*

Methods: The parts dealing with the urinary system in the copy of al-Rāzī's *Men lā yaḥḍuruhu al-ṭabīb* were translated from Arabic to English and discussed.

Results: In al-Rāzī's book, urinary problems under the headings of "Pains in the kidneys and bladder (nephritis and cystitis) and stones in the kidneys", "Hematuria", "Pyuria and Painful micturation/dysuria", and a prescription for medicine on this subject and "Drug for difficulty of passing urine/strangury" has been considered. In the relevant sections, rather than theoretical explanations, drugs and approaches to be used, especially in the face of problems, are mentioned. Changes in practice and treatment have been recommended in different symptomatic situations.

Conclusions: Rather than theoretical and etiological explanations for urinary problems, it has been seen that al-Rāzī offers accessible and applicable practical drugs and approaches for the general public, which can be considered suitable for the purpose mentioned in the book's introduction by al-Rāzī.

On the Surgical Treatments Related to Nephrological Issues in ʿAlī b. al-ʿAbbās al-Majūsī (Haly Abbas)'s *Kāmil al-Ṣināʿa al-Ṭibbiyya (The Perfect Book of the Art of Medicine)*

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Objectives: This study aims to translate the chapters on surgical treatments related to nephrological issues in the 9th article of the 2nd part of Haly Abbas's *Kāmil al-Ṣināʿa al-Ṭibbiyya* from Arabic into English, to contribute to the medical history literature, and to compare this chapters with the relevant chapters in the Paul of Aegina's *Epitome* and to discuss in the light of the related literature.

Methods: In this study, mainly the Cairo/Bulaq copy of *Kāmil al-Ṣināʿa al-Ṭibbiyya* printed in Arabic, and the manuscripts which are in the Istanbul University, the Yale University/USA, and the Süleymaniye Murad Molla collections were examined. The chapters were translated from Arabic to English by the authors of this paper, and presented in the results section. This translated chapters were then compared with the relevant chapters of Paul of Aegina's *Epitome* and discussed in the light of the related literature.

Results: The information on surgical treatments in nephrological issues is given in the 45th chapter titled "On Urination with Catheter" and in the 46th chapter titled "On Removing a Stone from the Bladder" of the 9th article of the 2nd volume of *Kāmil al-Ṣināʿa al-Ṭibbiyya*. The same subjects are available in the "Sect. 59- On Catheterism, and Injection of the Bladder" and in the "Sect. 60- On Calculus" of the 6th book in the 2nd volume of Paul of Aegina's work. The information given by Haly Abbas in these subjects are in great similar to the information given by Paul of Aegina.

Conclusions: It is considered that Haly Abbas may have benefited from Paul of Aegina on the reasons for the obstruction of the bladder, the choice of the catheter to be used to remove the accumulated urine, and the catheter application technique and the all applications and treatments for stone removal.

Evaluation of the Urinary System Diseases Sections in the Book Cerrahiyyetü'l Haniyye-Imperial Surgery by Sabuncuoğlu Şerefeddin

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Objective: Sabuncuoglu Serefeddin (1385-1465) is a medical scholar who wrote the illustrated surgical book (Cerrahiyyetü'l Haniyye- Imperial Surgery) in the history of Turkish and Islamic medicine. In his book, which consists of 206 pages and 193 items, there are topics related to surgery, obstetrics and gynecology, ophthalmology, pediatric surgery, thoracic surgery, urological and orthopedic surgery, as well as items related to neurological diseases.

In this study, we aim to examine urinary tract stones, surgical instruments, and procedures in the urological sections of the textbook by Serefeddin Sabuncuoglu.

Methods: Cerrahiyyetu'l-Haniyye by Sabuncuoglu were evaluated in terms of urinary tract stones, definitions of diseases and their etiologies, and surgical techniques and surgical instruments.

Results: The textbook contains definitions of the cauterization of the kidney, cauterization of the urinary bladder, the treatment of retention of urine, the manner of irrigating the bladder with the syringe, and the forms of the instruments that serve for that, extraction of a stone from man and female. Colorful miniatures containing images of the procedures performed on the patients were found in Surgicalyyetu'l Haniyye.

Conclusion: It is determined that the urinary tract diseases section in Cerrahiyyetu'l-Haniyye is a translation of Al-Tasreef of Abul-Qasim Khalaf Ibn Abbas Alzahrawi (Albucasis) in general, with some additional information and drawings. Both physicians' surgical instruments and procedures have reached the present day by undergoing changes.

On Kidney and Bladder Diseases in *Nuzhat al-Aẕhan fī Iṣlāḥ al-Abdān* by Physician Dāwūd b. ʿUmar al-Anṭākī

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Objectives: Considered as the Avicenna of his era, Dāwūd b. ʿUmar al-Anṭākī was an Ottoman physician and scholar lived in the 16th century and wrote medical texts in Arabic. He was trained by the Iranian medical scholar Muḥammad Sharīf in the fields of logic, physical sciences, and Greek, as well as medicine. After leaving Antioch, he first went to Lebanon, and eventually to Damascus where he began to write his work called *Taẕkiratu uli l-albāb wa l-jāmiʿ li l-ʿajab al-ʿujāb*. Dāwūd b. ʿUmar al-Anṭākī, later arrived in Egypt and taught at the Zāhiriyye Madrasa and worked as a physician, died in Mecca in 1599. In this study, al-Anṭākī's writings on kidney and bladder diseases in his work *Nuzhat al-aẓhan fī iṣlāḥ al-abdān* were examined.

Methods: By comparing the İlter Uzel's copy of *Nuzhat al-aẓhan fī iṣlāḥ al-abdān* with a printed copy, the sections on kidney and bladder diseases in the work were translated into English and presented in the results section. In the discussion section, these sections in *Nuzhat al-aẓhan fī iṣlāḥ al-abdān* were compared with the relevant sections in other important works of al-Anṭāqī, *al-Nuzhet al-mubhija fī tashḥīẕ al-aẕhān ve taʿdīl al-amzija* and *Taẕkiratu uli l-albāb wa l-jāmiʿ li l-ʿajab al-ʿujāb,* and the similarities and differences between these works were revealed.

Results: In *Nuzhat al-aẓhan fī iṣlāḥ al-abdān*, kidney and bladder diseases are briefly discussed under the headings of "amrāḍ al-kulā wa l-mathāna", "al-ḥisā", "ḥarqān al-bawl wa taqṭīruhu" ve "khurūc mawādd al-bayḍ wa l-maẕy".

Conclusions: In *Nuzhat al-aẓhan fī iṣlāḥ al-abdān* the issues related to kidney and bladder diseases are handled more briefly than in *al-Nuzhet al-mubhija fī tashḥīẕ al-aẕhān ve taʿdīl al-amzija. Taẕkiratu uli l-albāb wa l-jāmiʿ li l-ʿajab al-ʿujāb* only includes kidney and bladder stones. It is noticed that the information in these works complement each other when they are combined.

Personal Experiences of Chief Physician Emir Çelebi on Kidney and Bladder Diseases: A Brief Review in *Anmūzaj al-Ṭibb*

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Objectives: To review the sections on kidney and bladder diseases in Emir Çelebi's work called *Anmūzaj al-Ṭibb* in general by presenting and discussing Emir Çelebi's own experiences on these issues.

Methods: A copy of *Anmūzaj al-Ṭibb,* which is in İstanbul Süleymaniye Manuscript Library, Mihrişah Sultan Collection, nr. 342 was examined and the findings have been discussed in the light of the literature.

Results and Conclusion: We observed that the sections related to kidney and bladder diseases in Emir Çelebi's *Anmūzaj al-Ṭibb* are actually the Turkish translation of the relevant parts of Ibn al-Nafīs's *al-Mūjaz fī al-Ṭibb*. It has been seen that Emir Çelebi added his own observations and experiences to some of these chapters, while in others, it has been noticed that he added some quotations from physicians such as Ibn Māsawayh and Abū Bakr Muḥammad b. Zakariyyā al-Rāzī. One of the most interesting findings was the drug called *Yad-Allāh* which Emir Çelebi claimed that it was very effective in reducing the kidney stone of the Grand Admiral of the Ottoman Navy Recep Pasha. Emir Çelebi mentions that Galen and Asfalyus praised this medicament in their own works. However, it has been seen that *Yad-Allāh* traced in the literature, is actually a drug defined by Philagrius.

Franz Volhard: 150th Birth Anniversary of a Father of Nephrology and Hypertension

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Franz Volhard (May 2, 1872 - May 24, 1950) was a German clinician and researcher who made outstanding contributions in the field of nephrology and hypertension. His studies lead to relevant developments in the knowledge of kidney pathophysiology and their link with cardiovascular diseases. He contributed to a better understanding of the mechanisms behind renovascular hypertension, explaining the critical link between the decrease in renal perfusion and the increase in blood pressure. Moreover, he introduced an accurate classification of different kinds of hypertension manifestations and related kidney involvement.

During his outstanding career, Volhard led departments of internal medicine at the Luisen hospital in Dortmund (1905-1910) and in Mannheim (1910-1918).

In collaboration with Karl Theodor Fahr (1877-1945), he developed a new classification of Bright's disease reported in the book "Die Brightische Nierenkrankheit. Klinik, Pathologie und Atlas", revolutionizing the concepts behind the glomerulonephritis mechanisms.

They made the differentiation between (1) degenerative diseases, such as nephrosis (nephrotic syndrome); (2) inflammatory renal diseases, such as either focal (acute, chronic, postinfectious-interstitial) or focal embolic, or diffuse glomerulonephritis (3) arteriosclerotic renal diseases. Volhard studies also focused on the different manifestations of uremia: he divided uremia-associated symptoms into two criteria called "true uremia" and "pseudo-uremia".

In 1918, he chaired the department of internal medicine at the University of Halle, his alma mater, until 1928. In this year, he became chairman of internal medicine at the University of Frankfurt until 1938.

Volhard continued his prolific carrier until 1950, when he died from injuries obtained in an automobile accident. The worldwide medical community has highly appreciated the scientific contribution of Franz Volhard. He was posthumously recognized with "Franz Volhard Award" of the International Society of Hypertension.

In 1972, Sir George Pickering, Regius Professor of Medicine at Oxford, was the first to win this important award and delivered the first Volhard Lecture to The International Society of Hypertension. He described the eminent scientist as "one of the most handsome and the most impressive men that I have ever met. Outstanding, was his zest and joie de vivre. He noticed everything, and if it was good, enjoyed it hugely".

Remembering Erich Frank: A Review on "Dahili Böbrek Hastalıkları Kliniği"

Özant Helvacı

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Prof. Erich Frank (1884-1957) got his medical degree from Breslau University and eventually became a professor at the same institution. Following the unbearable oppression of Hitler's regime, Frank left his country and moved to Istanbul in 1933 to become the co-chairperson of the internal medicine department of the newly-found Istanbul University. He lived in Turkey until his death and is buried in Aşiyan Cemetary of Istanbul.

"Dahili Böbrek Hastalıkları Kliniği" is a compilation of Prof. Frank's lectures translated by Prof. Nebil Bilhan, published in 1941, is considered the first Turkish textbook dedicated to kidney diseases. The title can be translated as "The ward for internal diseases of kidney" or "Clinical approach to non-surgical diseases of the kidney."

The book has 297 pages, of which 279 pages contain the main content; the remainder is devoted to the foreword, index, and illustrations. There is no bibliography. Pages are on first-class pulp paper. The 12-point font was adopted throughout the text. There are a few hand-drawn illustrations and photographs.

Scientific content begins with an inspirational preface and continues with renal embryology and physiopathology. Kidney diseases are evaluated under ten sections.

The work is somewhat hard to read for today's reader. In addition, the heavy influence of Ottoman words may necessitate a dictionary. However, hints of Turkish becoming a scientific language can be caught. Understandably, no formal referencing system exists. Prof. Frank cites the author's surnames. His respect for Volhard is recognizable. The book is not arranged as a textbook since it consists of gathered lecture notes. Frank's personal practice experiences enrich the content nonetheless.

"Dahili Böbrek Hastalıkları Kliniği" is invaluable for Turkish nephrology.

I want to express my gratitude to Dr. Frank one last time on the occasion of this review. I stand in awe of his achievements and resilience. His contributions to internal medicine as a discipline and Turkish nephrology shall never be forgotten.

Robert Tigerstedt - Discovery of Renin

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Robert Tigerstedt (RT) (1853-1923), one of Scandinavia's most famous scientists of the time originated from Helsinki in Finland. He completed basal education as Bachelor of Science in 1876 and studied medicine at the University of Helsinki. His doctoral dissertation "On the Mechanical Stimulation of the Nervous System" and ten others original publications made him famous in neurophysiological community. In 1881 RT moved to Physiology Department, Karolinska Institute Stockholm, where he created a modern laboratory and became professor at the age of 33. After contact with Carl Ludwig in Leipzig he got interested in the central blood circulation.

In 1886, together with his assistant Per Bergman, RT started a series of 50 meticulously performed experiments with an extract of the rabbit kidneys cortex, which when injected to the other rabbits increased blood pressure. The hypothetical responsible substance was called renin. The results were presented at the XIIth International Congress of Medicine (Moscow, 1887). However, they proved "too advanced" for the time; another 40 years elapsed until Goldblatt confirmed the RTs theory that "substance which comes from kidneys increases the blood pressure".

In 1901 Professor RT returned to Finland and headed the Physiology Institute, Helsinki. His further activities included scientific work, teaching and socially-oriented issues like healthy nutrition or conditions in the prison camp. He was also interested in history of medicine and was a member of Nobel Committee. RT was involved in alcohol temperance activity, his pertinent book was distributed in 200 000 copies.

RT´s Textbook of the Human Physiology had numerous editions in many languages. He wrote also Textbook of Physiological Methodology and, just before death, Physiology of Circulation. RT published over 200 scientific papers, was the Honorary Doctor at many Universities and founded the International Union of Physiological Sciences (1889). RT was known for a strong personality, critical judgment, idealism, humor and warm heart. He married a Ukrainian Ljuba Martinau in 1878; they had three children.

Heliodor Laskowski (1898 - 1936) – The Creator of the Polish Coastal Artillery and His Kidney Disease

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Objectives: The aim of the study is to analyze the biography of Heliodor Laskowski (1898 - 1936) - a distinguished Lieutenant Commander of the Polish Navy in the context of his struggle with kidney disease.

Methods: The method of analyzing of the monographs and historical source materials was used.

Results: Heliodor Laskowski, born in 1898, was a Lieutenant Commander of the Polish Navy and the creator of the Polish coastal artillery in the interwar period. Thanks to his efforts, large-caliber artillery was created at the Hel Fortified Area (Polish fortifications at Hel Peninsula in northern Poland) after 1918. The battery was consisted of four Swedish-made Bofors guns 152.4 mm and it played an important role in the defense of the military base against German troops during the Battle of Hel in September 1939. The coastal batteries at the Hel Fortified Area were the one of the strongest in Poland at the beginning of the WWII. Heliodor Laskowski did not live until the outbreak of World War II. Due to his deteriorating health, he was sent to a hospital in Warsaw in December 1935. Next, he was sent for climate treatment to Egypt, where he died on April 12, 1936, at the age of 37. The cause of his death was end-stage renal disease with arterial hypertension. Unfortunately, in the 1930s it was not yet possible to conduct renal replacement therapy to prevent death. The commander of the Polish Navy - Admiral Jerzy Świrski solemnly named the battery on the Hel Peninsula after Heliodor Laskowski in January 1937. The end-stage kidney disease that caused Heliodor Laskowski's premature death was probably the result of his previous health problems, possibly glomerulonephritis. In his biography we can find information that after a serious illness he started his studies in Warsaw in 1918.

Horseshoe Kidney: 500 Years From the First Report in the Literature

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Horseshoe kidney or ren arcuatus represents the most common renal fusion anomaly, with an incidence of 1 in 500 in the normal population with a male preponderance of 2:1. In more than 90% of cases, fusion occurs along the lower pole. It can differ for location, orientation and both arterial and venous anatomy variability.

In 1522 Berengario da Carpi described for the first time this renal malformation in his masterpiece "Isagogae breves" (Introduction to Anatomy). He reported the findings of a post-mortem examination in the public autopsy hall of the University of Bologna, describing "kidneys continuous as if they were one kidney, with two emulgent veins, two emulgent arteries, two ureteric ducts".

In 1564 Leonardo Botallo further described and illustrated the characteristics of this atypical anatomical presentation and later, in 1602, Leonard Doldius added more details by studying this anatomical feature in an autopsy.

In 1761, Giovanni Battista Morgagni discussed this condition not only as a rare anatomical curiosity found only in necroscopy but discussed its physiological aspect.

In the XXIX century, the horseshoe kidney assumed a more important role in urological diagnosis and treatment with the onset of renal surgery, with an increased frequency of its identification.

With the advent of pyelography, the imaging reports of horseshoe kidney permitted a more accurate representation of the anatomical variants, which is particularly useful in pre-operative evaluations and outcomes.

Berengario da Carpi posed the basis for a better knowledge of this anatomical anomaly. After 500 years from the first report in literature, relevant advancements in the treatment of horseshoe kidney-related complications and diagnosis have been performed, confirming the need to monitor the individuals with this condition who are at higher risk of chronic kidney disease development.

FMF-Related Amyloidosis in Turkey: A Wound that Still Bleeds?

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Amyloidosis has been very well known since Wirchow named the condition in the 19th century. Most physicians were aware of amyloidosis' relation to chronic suppurative conditions and multiple myeloma.
On the other hand, Familial Mediterranean Fever (FMF), while probably as ancient as the Galenic era, has been appropriately identified only in the 21st century. Though nomenclature was very variable in history, the name "FMF" has universally been adopted since Heller & Sohar's paper in 1958.
Dr. Abreyeva Marmaralı published a case report in 1946 entitled "'Garip Bir Karın Ağrısı Sendromu*". This case is believed to be the first Turkish FMF case ever reported. While Erich Frank and contemporary physicians knew amyloidosis was common in Turkey, there was no mention of FMF or its other aliases in most sources before 1967.

In 1967, Dr. Cavit Sökmen and Dr. İlhan Özdemir of Ankara University published "The Spectrum of Renal Diseases Found by Kidney Biopsy in Turkey" in Ann Int Med. In this report, 64 of 194 patients had amyloidosis. FMF was the most common cause, constituting half of the cases.
1972 witnessed the arrival of colchicine as Dr. Goldfinger demonstrated efficacy. Further studies revealed "çiğdem çiçeği**" is also efficient in preventing amyloidosis.

However, since Dr. Sökmen's work, several single/multicenter AA amyloid papers from Turkey have been published. Almost invariably, FMF is the most common cause of systemic amyloidosis. No downward trends in percentages can be observed. That brings us to the question; Why a complication that is 98% preventable is yet causing ESRD?

Health illiteracy, non-compliance, diagnostic delays, resistant disease, phenotype two phenomena, and other factors may answer this question. Unfortunately, the available publications are retrospective and heterogenous, hence unable to be helpful.

Current data is insufficient to deem ourselves successful in diagnosing and treating FMF as Turkish physicians. We believe the nearly perfect work of "Turkish FMF Study Group" entitled "Familial Mediterranean Fever (FMF) in Turkey: Results of a Nationwide Multicenter Study" desperately needs a renewal, preferably in a prospective fashion.

* "An enigmatic syndrome of abdominal pain."
** "Çiğdem çiçeği" is the Turkish correspondence of "colchicum autumnale" from which colchicine was first derived.

From a Surgeon's Registry (Dr. Hayri Meriç), Urological Surgeries and Their Results Performed in Gaziantep Hometown Hospital in 1949

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Objective: Gaziantep Memleket (Hometown) Hospital was the first official state hospital that started to serve in Gaziantep after the establishment of the Turkish Republic. It started to operate in 1927 under the Special Administration. In this study, we aimed to present the urological surgeries performed in 1949 and their results recorded by Dr. Hayri Meriç (1909-8 October 1968).

Material and Methods: The 64-page brochure written by Dr. Hayri Meriç and published by Halk Dili Press in Gaziantep in 1950 was analyzed. In this brochure, he stated that he started to work as a single surgeon in the hospital on November 30, 1948, and was the chief physician of the hospital since May 30, 1949. In the light of the information presented by him, the number of patients admitted to the surgical clinic, how many urological operations were performed, which pathological causes played a role in urological surgeries, and how the operations had resulted were recorded

Results: It has been reported that a total of 738 patients were hospitalized in the surgical clinic of Gaziantep Hometown Hospital in 1949. Surgical intervention was performed in 473 (64.1%) of these patients. Of 473, 439 (92.8%) were cured, 5 (1.03%) recovered, 6 (1.23%) were discharged, and 23 (4.8%) patients died. Operative procedures were performed in 49 (10.3%) of 473 patients due to urological pathologies in the surgery service. Existing urological pathologies were testicular diseases, prostate enlargement, bladder stone, bladder papilloma, urinary tract stricture, urinary tract stone, kidney stone, kidney trauma, vesicorectal fistula, penile deformity, and circumcision. Forty-eight (97.9%) of the urological interventions resulted in a cure, and one (2.1%) resulted in death diagnosed with prostate enlargement. In his records, he also mentions hospital-related problems and has emphasized the importance of correct communication between physicians and patients.

Conclusion: He was a surgeon being a role model to his colleagues by showing how valuable the proper keeping of medical records is in terms of transferring information to future generations and emphasizing the importance of patient-physician and inter-physician communication

An Overview of Urinary System Malingering in Military Medicine Practices at the Beginning of the 20th Century

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Objectives: Malingering is the situation that the discordance between the diagnosis of the physician and the symptoms of the patient's illness is made by the patient for secondary gain. Malingering is more common in professions where stress factors are high such as military service.
In this study, malingering is analyzed, which became a medical problem that would put the army in trouble while the war was going on in many frontlines of battle in the last period of the Ottoman Empire. Malingering was discussed in the context of urinary system diseases, and it was aimed to reveal the importance of malingering, diagnosis and differential diagnosis in the military health system of the period.

Methods: Doctor Nâzım ŞAKİR's studies on malingering in order to convey his experiences in his own military medicine life are discussed. After serving as a military physician in World War I, Nazım ŞAKİR was appointed to Gülhane Psychiatry Clinic as a faculty member. The chapter of "Urinary System Diseases Malingering" in Nâzım ŞAKİR's book of "Malingering and its Diagnosis" which published in 1922, was translated from Ottoman Turkish into today's Turkish language and discussed.

This book is partly a translation of the copyrighted work of his French colleague, Professor of Forensic Medicine at the Strasbourg Medical Faculty, Prof. Dr. Paul Marie Victor Chavigny (1869-1949), and part of it consists of his own knowledge, experience and comments.

Results: Anatomical and physiological pathologies of all organs of the urinary system, such as kidneys, bladder, urinary tract, prostate, testes, as well as pathological laboratory results such as uremia, albuminuria, and kidney function abnormalities were analyzed using the text mentioned from the perspective of the period, and the differential diagnosis of malingering of related diseases was analyzed.

Conclusion: It was revealed that malingering in general, and urinary system malingering, should be addressed in a wide range from the perspective of military medicine of early 20th century, from simple secondary gain to complex psychiatric pathologies.

History of Sleep Disorders in Kidney Disease

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Sleep complaints have been reported a few years after Scribner introduced in 1963 maintaining hemodialysis (HD). The first report was that of Passouant, Cadilhac, Baldy Moulinier and Mion in 1970 in patients undergoing HD or Peritoneal Dialysis (PD). In 1982 Strub et al disclosed a 63% prevalence of sleep disorders in HD patients, whereas in 1989 Kimmel, Miller and Mendelson diagnosed sleep apnea in 6 out 6 CKD patients not yet on dialysis and in 12 out 20 patients on HD. The finding was not given the importance it deserved for the subsequent 15 years.

R.M. De Santo (1999) studied the daily changes in quality and quantity of sleep in HD patients dialyzed thrice a week either in morning or in the afternoon shift. It has been demonstrate a progressive worsening of sleep from the night immediately following dialysis, to the night preceding dialysis, to the night neither preceded nor followed by dialysis. The worst sleep was found in the night of the longest dialytic interval as well as in the morning shifts. R.M. De Santo et al. (2001) also claimed priority for the association of insomnia with systolic hypertension in HD patients achieving the target hemoglobin levels suggested by optimal American and European best practices. Sleep was studied in predialysis CKD patients (creatinine clearance 29.96±10.93 ml/min) by Iliescu et al. (2004) who disclosed a 53% prevalence of disordered sleep by means of the Pittsburgh Sleep Quality Index. Their paper did not disclose any difference between patients with creatinine clearance lower or greater than 17.8 ml/min, but identified depression as the only significant predictor of poor sleep. The subsequent year M. Sabbatini et al. (2005) reported on sleep disorders in transplanted patient - a never investigate problem - and disclosing improvement. R.M. De Santo et al. and B.R. Di Iorio et al. (2006) were the first to disclose, by a 26-item self-administered questionnaire (SDQ), a 83% prevalence of sleep disorders in CKD patients recently diagnosed early CKD (plasma creatinine concentration 1.9±0.80 mg/dl, CKD stage III).

Two longitudinal studies deserve mention. The first authored by M. Sabbatini et al. (2008) suggested progressive worsening of sleep quality in CKD patients (CKD stage III - CKD stage IV) not reaching the target of blood pressure control. The second authored by R.M. De Santo et al. (2010) was a 4-year study with controlled blood pressure in 220 early-CKD patients (eGFR 84±21.1ml/mi/1.73 m2) disclosed that one month after from receiving the diagnosis of CKD, 85.5% of the patients were poor sleepers. Sleep habits improved with time by accurate control of blood pressure by means of various hypotensive. Also the score of Beck Depression Inventory improved with time and eGFR did not worsen.

The next crucial step was the demonstration that shorter and longer total sleep time are associated with worse kidney function and that sleep disturbances are a risk factor for development and progression of CKD (N.F. Turek et al., 2012).

R.M. De Santo performed in 2010 a prospective study alexithymia in HD patients that been disclosed by Fukunishi since 1989. Alexithymia is a construct indicating difficulty in identifying and describing feelings and in distinguishing feelings from the bodily sensations of emotional arousal. This study showed to describe emotions was found worst in patients with medically unsuppressed hyperparathyroidism who after parathyroidectomy improved alexithymia, sleep and depression.

Recently Mild Cognitive Impairment (MCI) came of age and its presence accompanies CKD patients, since early stages, is present in patients in renal replacement therapy, is improved by renal transplantation and is associated with sleep disorder and is a limiting risk factor for quality of life as indicated in many studies by D. Viggiano et al. (2019-2022) and others before and after the start of the Cognitive Decline in Nephro-Neurology: European Cooperative Target initiative.

Malaria a Papal Disease

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The aim of this paper is to shed light on the narratives of malarial popes. In the years 996-1590, a group of 17 popes (from Gregory V to Urban VII) died of malaria. Of 9 out 17 we know the mean age death that was 65.1 years. Urban VII was the last pope to die of malaria. He died before enthroning having reigned in healthy status for 1 out 13 days. Furthermore in the years 1085-1585 a group of 7 popes (from Gregory VII to Gregory XIII) were affected by malaria but survived. The mean age death of 6 out 7 was 64 years. Malaria is an ancient disease that accompanies humankind since its historical origins (1), and already described in a Chinese document of 2700 BC. It is caused by a protozoan parasite of the genus Plasmodium. It is transmitted by female mosquitos of the Anopheles specie that feeds on humans. The parasite was described for the first time by Alphonse Laveran in 1880, Nobel prize for Medicine and Physiology in 1907. Ronald Ross (1857-1932) elucidated the modality of transmission in culicine mosquitos and birds infected with Plasmodium relictum and was awarded the Nobel Prize in 1902 . The whole cycle of the parasite has been elucidated by the Italian marialogists

Malaria is a serious and sometimes fatal disease. The term malaria appeared for the first time in Venice in the XV century in a writing of Marco Cornaro (Writings on Laguna). The presence of Plasmodium vivax affected the cities of Magna Graecia in Italy since the VII Century BC and that of Plasmodium Falciparum since the IV Century AD. Rome and the Pontine plain have been malarial sites. So being pope and obliged to reside in Rome represented a risk factor for contracting the disease. Popes had great interest in the draining marshes and Sixtus V establish a special congregation (Aeterna dei, Jan 22, 1558) that supervised rivers, road, bridges.

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