UTI
Urogenital Tract Infection

Editorial

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Editorial for UTI 2025 Vol. 20 No. 1 - Highlights of This Issue's Papers and the UTI Editors' Pick

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Urogenital Tract Infection publishes practical, timely and relevant research papers in both clinical and basic sciences, covering all aspects of urogenital infections and inflammation. We aim to offer a comprehensive and rapid overview of the latest knowledge regarding prevalent urogenital infections through dedicated review articles on each topic.

This month, *Urogenital Tract Infection* presents an in-depth exploration of the epidemiology of urinary tract infections (UTIs) and features the latest updates from leading authors around the world. Here, you will find 3 review articles, 2 original articles, 1 case report, and a letter contributed by preeminent researchers from around the world.

Professor Ho-Yeon Song [1] of Soonchunhyang University presents the latest insights into microbiome therapeutics for UTIs. The authors propose microbiome therapy as an alternative to traditional treatments, which often promote drug resistance and disrupt the host's healthy microbiome, thereby causing additional side effects. This approach has proven effective against various infectious diseases and promises a significant improvement in treatment outcomes. Professor Juan Victor Ariel Franco [2] of Heinrich-Heine-University Düsseldorf in Germany outlines recent advances in molecular diagnostics, point-of-care testing, and artificial intelligence (AI)-based predictive models for the diagnosis of urinary tract infections. These new technologies offer improved sensitivity, specificity, faster detection times, and comprehensive identification of pathogens and their resistance profiles. AI and machine learning models, in particular, show notable potential for risk stratification, infection prediction, and enhancing antibiotic prescribing practices. However, despite these promising advances, important gaps remain, including limited real-world implementation evidence, high costs, and insufficient data from diverse populations. The author suggests that additional rigorous clinical trials, economic evaluations, and practical implementation studies are needed to improve outcomes, optimize antibiotic stewardship, and alleviate the global burden of antimicrobial resistance. Professor Jin Bong Choi [3] of Catholic University of Korea reports that the current syphilis surveillance system restricts the collection of comprehensive data on disease occurrence, thereby hampering detailed analyses of patient demographics and disease stages. He recommends that, under the revised Infectious Disease Prevention Act, syphilis be reclassified from a class 4 infectious disease under surveillance to a class 3 infectious disease subject to mandatory surveillance starting January 1, 2024, with all medical institutions required to report syphilis diagnoses within 24 hours.

Dr. Seung-Kwon Choi [4] of Seoul Medical Center conducted a retrospective analysis of 217 South Korean

patients to examine mortality and risk factors associated with emphysematous pyelonephritis (EPN). In the univariate analysis, the Huang and Tseng classification, platelet count, and acute kidney injury were significantly associated with EPN mortality. However, multivariate analysis identified only the Huang and Tseng classification as a significant risk factor. Mortality rates according to the Huang and Tseng classification were reported as follows: class I (5.88%), class II (7.50%), class IIIa (14.28%), class IIIb (25.00%), and class IV (23.07%). The authors concluded that EPN is associated with a high mortality rate and that the Huang and Tseng classification is the most crucial predictor of mortality among the clinical factors evaluated. Professor Tae-Hwan Kim [5] of Kyungpook National University reported the efficacy of Urovaxom in alleviating chronic pelvic pain syndrome (CPPS) symptoms in prostate cancer patients who underwent radical prostatectomy. In a study involving 52 patients administered Urovaxom for 12 weeks, changes were recorded using the National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI), Overactive Bladder Symptom Score (OABSS), and International Prostate Symptom Score (IPSS). After treatment, the NIH-CPSI score decreased significantly from 19 to 12.5, the OABSS score dropped from 8 to 5, and the IPSS score declined from 13.5 to 10.5. The authors concluded that Urovaxom is significantly effective in improving CPPS symptoms, particularly pain and overall quality of life, in patients postradical prostatectomy.

Professor Jeonghyouk Choi [6] of Kyung Hee University presented a case report titled "Hemangioma Misdiagnosed as Renal Cell Carcinoma in Patients with End-Stage Renal Disease." The report describes 2 cases where hemangioma was misdiagnosed as renal cell carcinoma prior to renal transplantation. The key finding was that computed tomography and magnetic resonance imaging erroneously identified a hemangioma as renal cell carcinoma in a patient with end-stage renal disease. Because the patient was scheduled for a living donor transplant, the heterogeneously enhanced renal mass was surgically resected promptly to avoid any delays. These cases underscore the importance of prompt surgical resection of an enhanced renal mass to confirm the diagnosis and prevent delays in transplantation. Dr. Byoungkyu Han [7] of Perfect Urology Clinic details a 2022 outbreak of cystoscopy-associated UTIs caused by *Pseudomonas aeruginosa* in South Korea (a case series). This outbreak underscores the urgent need for a multifaceted infection prevention strategy that includes strict environmental management, proper hand hygiene, thorough healthcare worker education, rigorous adherence to endoscope reprocessing protocols, and continuous surveillance of high-risk areas. In addition, rapid drying after cleaning is essential to inhibit the growth of *P. aeruginosa*. As the use of endoscopy continues to rise, effective infection control and biofilm prevention measures are paramount to minimizing hospital-acquired infections. This case series emphasizes the need for early detection, timely intervention, and strict adherence to infection control protocols to avert similar outbreaks.

In summary, this overview highlights the key contributions of the papers published this month. In particular, Professor Franco's review paper [2] was selected as an editor's recommendation because it is expected to broaden the reader's perspective in this field. As UTI gains increasing international recognition, we invite the ongoing interest and support of experts focused on urogenital infections and inflammation who seek fresh and valuable insights.

• **Conflict of Interest:** The author has nothing to disclose.

REFERENCES

1. Seo H, Rahim MA, Barman I, Hossain MS, Tajdozian H, Ghorbanian F, et al. Emerging insights into microbiome therapeutics for urinary tract infections: a narrative review. Urogenit Tract Infect 2024;20:4-16.
2. Franco JVA, Meza N. Advances in the diagnosis of urinary tract infection: a narrative review. Urogenit Tract Infect 2024;20:17-27.
3. Lee SJ, Choi JB. A narrative review of syphilis notification systems in Korea: change to mandatory surveillance system.

Urogenit Tract Infect 2024;20:28-33.
4. Choi SK, Lee JW, Jung SI, Hwang EC, Choi J, Kim WB, et al. Mortality and risk factors for emphysematous pyelonephritis in Korea: a multicenter retrospective cohort study. Urogenit Tract Infect 2024;20:34-41.
5. Kang JK, Ha YS, Park S, Kwon TG, Kim TH. Efficacy of urovaxom for improving chronic pelvic pain syndrome symptoms in prostate cancer patients underwent radical prostatectomy: a multicenter, prospective cohort study. Urogenit Tract Infect 2024;20:42-7.
6. Lee HL, Lee DG, Lee JW, Choi J. Hemangioma mistaken for renal cell carcinoma in a patient with end-stage renal disease: a case report. Urogenit Tract Infect 2024;20:48-51.
7. Han B. A commentary on "outbreak of cystoscopy-related urinary tract infections with Pseudomonas aeruginosa in South Korea, 2022: a case series." Urogenit Tract Infect 2024;20:52-4.