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EDITORIAL

Special Edition on Neuro-urology

Editorial special edition neuro-urology

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It was an honor and gratifying to coordinate this special edition on neuro-urology. The willingness to contribute of the experts in the field was a positive surprise and extraordinary during this worldwide crisis that affected and challenged us all. I appreciate the efforts of all who did and wanted to contribute and especially thank those, whose manuscripts got rejected during the review process. Furthermore, my thanks and appreciation go to the many reviewers who played a pivotal role in the making of this special edition.

Urologic complications are not the primary cause of death in individuals with spinal cord injury or disease (SCI/D) anymore [1]. However, neurogenic lower urinary tract dysfunction (NLUTD) and associated urologic complications are still among the most prevalent and severe health issues after SCI/D [2, 3]. It is therefore no surprise that the restoration of bladder and bowel function is a top priority for individuals with SCI/D [4]. This is currently not (yet) possible and thus, our clinical and research efforts aim at the prevention, diagnosis, and treatment of associated complications such as upper urinary tract deterioration, urinary tract infections (UTIs), urolithiasis, and bladder tumors. At the same time, the effects of NLUTD and these measures on participation and quality of life of affected individuals need to be considered.

The diagnosis and treatment of UTIs continue to be a challenge in individuals with NLUTD. The real snag is the differentiation between a clinically relevant UTI that needs to be treated with antibiotics and bacteriuria that must not be treated. The evaluation of patient-reported symptoms potentially indicating a UTI is key for this differentiation in individuals with SCI/D [5]. Trachtenberg et al. [6, 7] evaluated the validity and reliability of two instruments for recording symptoms that are associated with UTIs in individuals using indwelling catheterization and those voiding (mostly) without a catheter. These standardized and validated instruments should be used universally to provide the data that will enable us to differentiate between UTI-related and unlikely UTI-related symptoms. In addition, urinary biomarkers are potentially valuable for identifying UTIs that require treatment. Forster et al. [8] observed higher levels of urine neutrophil gelatinase-associated lipocalin in individuals likely to have a UTI compared to those with non-specific symptoms or less bacterial growth in the urine culture. Improving the specificity of identifying UTIs that require antimicrobial treatment will improve antibiotic stewardship. Furthermore, bacteriophages represent a very promising alternative and safe treatment for UTIs, especially in high-risk populations such as individuals with NLUTD [9].

Cancer is the third leading cause of death in individuals with SCI/D, and bladder cancer is the second most common cancer type in these individuals [10]. Böthig et al. [11] reported the characteristics of bladder cancer with regard to bladder management, type of bladder dysfunction, injury severity, and SCI/D duration in a cohort of 135 individuals with NLUTD.

Naturally, there are also psychosocial consequences of NLUTD and the management thereof. Vice-versa, health-related psychosocial aspects affect how individuals with NLUTD rate their bladder function and satisfaction. Furthermore, there is an interplay between bladder and bowel symptoms/management. In this edition, you find three articles that shed some light on these complex associations [12–14].

The attenuation of detrusor activity is currently the corner stone of protecting the upper urinary tract in individuals with neurogenic detrusor overactivity. However, catheters are required for bladder evacuation, and presently, there are no non-invasive, therapeutical options to elicit on-demand urination and defecation. Marson et al. investigated whether neurokinin 2 receptor agonists produce urination and defecation in a rat model of SCI.

Further trials and studies with the aim to improve the situation of individuals affected by NLUTD are needed. Anderson et al. [15] showed how prospective cohort data can be used to assess trial feasibility regarding recruitment and operational requirements.

There are more interesting articles to discover in this special edition. I hope that you gain both knowledge and inspiration for further research.

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COMPETING INTERESTS

The author declares no competing interests.

ADDITIONAL INFORMATION

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