



A Rare Late Presentation of Xanthogranulomatous Pyelonephritis in a Patient with Cerebral Palsy

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Received: Apr 19, 2022

Accepted: May 7, 2022

Published Online: May 09, 2022

Journal: Journal of Clinical Images

Publisher: MedDocs Publishers LLC

Online edition: <http://meddocsonline.org/>

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Clinical image description

Xanthogranulomatous pyelonephritis is a chronic granulomatous process from chronic infection resulting in an incomplete immune response. We present a classic case of xanthogranulomatous pyelonephritis in an adult cerebral palsy patient as a result of recurrent urinary tract infections and renal stones.

Cerebral palsy patients are more prone to recurrent urinary tract infections and renal stones and a high index of suspicion is needed to prevent acute kidney injury from progressing to chronic kidney disease.

A 47-year-old female with cerebral palsy and seizure disorder presented to our hospital with fever and changes in mental status. Her initial laboratory workup was concerning for urinary tract infection and the patient was started on ceftriaxone. Review of the patient's medical history revealed several urinary tract infections that were treated with different courses of antibiotics in the past.

Computed Tomography (CT) scan of her abdomen and pelvis showed bilateral staghorn renal calculi and right-sided xanthogranulomatous pyelonephritis with classic "Bear paw" sign as shown in Figure 1 and 2. At this point, the patient had already developed Chronic Kidney Disease stage (CKD) III. During Urology evaluation, the patient declined to undergo any surgery (stone removal or nephrectomy) because of possible dialysis in the future, and caregiver fatigue.

The case illustrates the importance of improving the clinical management of cerebral palsy patients to reduce the risk of CKD development or progression. Using creatinine-based formulas for estimating glomerular filtration rate, which often overestimates kidney function in such patients, is the most important limitation [1]. Among the factors contributing to recurrent AKI are (1) recurrent UTIs in the setting of urological dysfunction, constipation, being supine, which can result in sacral ulcers and fecal incontinence, and (2) recurrent kidney stones as a result of limited mobility which ultimately lead to upper urinary tract damage in children with cerebral palsy [2].



Cite this article: Kannan L. A Rare Late Presentation of Xanthogranulomatous Pyelonephritis in a Patient with Cerebral Palsy. J Clin Images. 2022; 5(1): 1127.

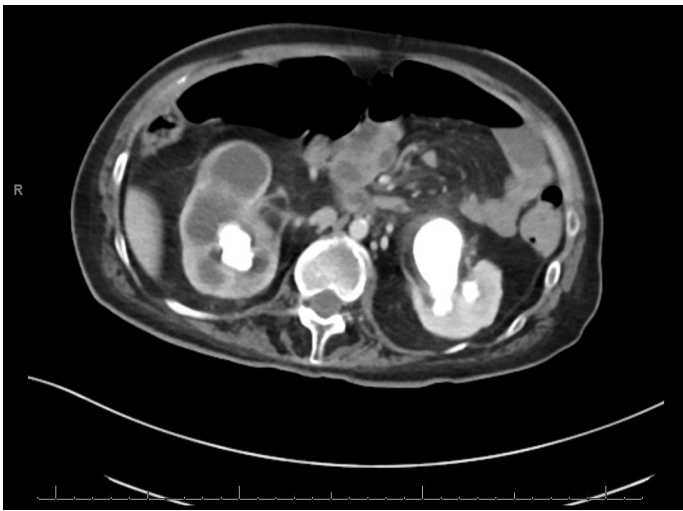


Figure 1

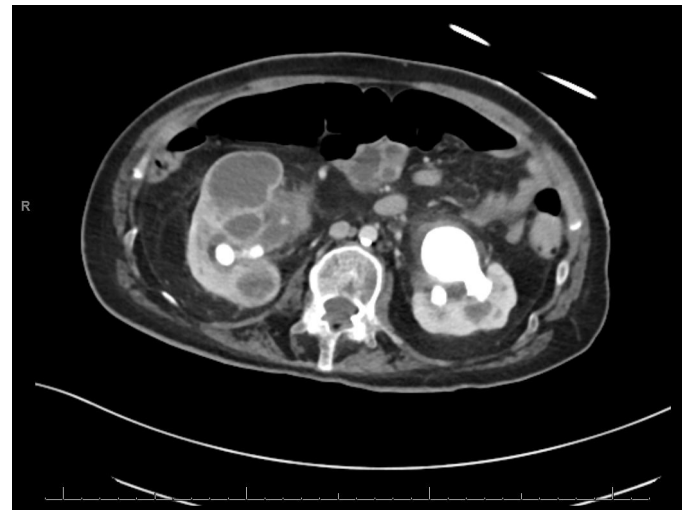


Figure 2

It is important to treat cerebral palsy patients with recurrent UTIs and renal stones promptly and to use extra caution as the consequence of ignoring this is a missed opportunity for referring patients to nephrologists, recognition of potential CKD complications and early intervention.

Informed consent

Informed consent was obtained from the patient for their anonymized information to be published in this article.

Ethical disclosure

The author declares no potential conflicts of interest with respect to the authorship, and/or publication of this article. Our institution does not require ethical approval for reporting individual cases.

Funding

The author received no financial support for the authorship, and/or publication of this article.

Acknowledgment

The author would like to acknowledge funding support for the publication of this case report which was provided by the education department at Pikeville Medical Center, KY, USA.

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