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Editorial

Urinary Stone Management During COVID-19 Pandemic

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HIGHLIGHTS

- COVID-19 is a major health problem all over the world.
- Many countries used a lockdown strategy to control COVID-19 outbreak.
- There was 29,404,719 COVID confirmed cases in the globe.

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ABSTRACT

Nowadays coronavirus disease 2019 (COVID-19) is a major health problem all over the world. So, regarding the highly recommended homestay strategies for prevention of COVID-19 the usual treatment platform of several diseases has changed. During self-quarantine, the urolithiasis treatment is completely different. However, we can suggest conservative treatment for three months during the COVID-19 outbreak and after that reevaluation of the patient will be done. Thus, the operation could be chosen carefully based on patient's and urologist's preferences and the rate of infection in that center.

Keywords: Urinary stone; Urology; COVID-19; Pandemic; Urolithiasis

Editorial: Coronavirus disease 2019 (COVID-19) is now the major health concern of the century in several countries (1). Due to official data, 15 September 2020 there was 29,404,719 confirmed cases in the globe and there are 23,220 deaths and 404,648 confirmed cases in Iran (2). Many countries used a lockdown strategy to control this outbreak. Many urological wards postponed surgeries to accommodate infected patients. Operations are limited to urological emergencies and almost all major centers have suspended non-emergent urinary stone surgeries. On the other hand, the prolonged homestay has various undesirable consequences on people, such as physical inactivity and weight gain, which potentially could put the general population at risk of urinary stone formation (1).

Besides, fear of COVID-19 can postpone Double-J (DJ) stents removal and this will raise the risk of encrustation. Regarding prevention and treatment strategy of urinary stones in this COVID-19 crisis, we can divide patients into two groups. The first group is the people for whom the urological intervention is not indicated. This group includes normal and at-risk population and non-struvite, non-cystine renal stones less than 7 mm with no anatomic abnormalities. In this group general dietary and lifestyle modifications are helpful which includes consuming more than 3 liters of water and beverages each day, restricting the use of salt and red meats, and having home exercise more than three times a week (3).

The second group is the patients for whom the

urological intervention is indicated. This group can be divided into emergent and non-emergent subgroups. Patients with urinary stones and concomitant uremia, sepsis, anuria, or refractory pain and vomiting are emergent ones, that intervention is necessary. The preferred option during the novel coronavirus crisis in these patients is percutaneous nephrostomy insertion under local anesthesia. This method is less invasive and the health provider has less exposure to the patient in comparison with DJ stent insertion.

The last subgroup is the patients with asymptomatic and non-complicated urinary stone, which urologic intervention is indicated in usual time. However, we can suggest conservative treatment for three months during the COVID-19 outbreak and after that reevaluation of the patient will be done. Shaoqing Lei et al., reported 20% mortality for patients who operated during the incubation period of COVID-19. Despite that, we can leave the option of operation for patients who couldn't tolerate pain. Thus, the operation could be chosen carefully based on patients and urologist's preference and the rate of infection in that center. However, we do not recommend laparoscopic stone removal due to general anesthesia requirement.

Conclusions

All in all, there is no clear guideline for the management of kidney stones during the COVID19 pandemic however, we can suggest to all at-risk patients to evaluate for urinary stones after the lockdown period with ultrasonography.

Authors' contributions

All authors had an equal contribution.

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Conflict of interest

All authors declare that there is not any kind of conflict of interest.

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Ethical Statement

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Data availability

Not applicable.

Abbreviation

COVID-19 Coronavirus disease 2019
DJ Double-J

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Author (s) biosketches

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