A rare formation of renal calculi like a mushroom

Takashi Kawahara, Hiroki Ito, Hideyuki Terao, Yoshinobu Kubota, Junichi Matsuzaki

To the Editors,

A 65-year-old male patient was referred to our institute for the treatment of his left ureteral and renal calculi (Figure 1A–B). After two months, he was admitted to our department for treating his left ureteral and renal calculi with ureteroscopic lithotripsy using a holmium yttrium aluminum garnet (Ho: YAG) laser. After inserting ureteral access sheath, we firstly made stone fragment and retrieved them in the ureter using rigid ureteroscope (URS) with Ho: YAG laser lithotripsy. Thereafter, we observed the renal collecting system using flexible URS. In the view of flexible URS findings, renal stones were formed like mushrooms (Figure 2). Because of large stone volumes, we made stone fragments and retrieved them in the second session of URS one month after initial treatment.

In general, ureteral and renal stones were usually formed as a round ball, except for the large renal staghorn calculi. Our institute is a large referral stone disease center in Japan, more than 400 shockwave lithotripsy (SWL), 300 URS and 80 percutaneous nephrolithotom (PCNL) were performed per year.

Figure 1: (A) Kidney Ureter Bladder film. and (B) CT scan, showed left renal stone, but showed no detailed stone formation.

Figure 2: Renal stones were formed like a mushroom.

However, it is our first time to see these ridiculously formed renal stones like mushrooms. A total of nine stones were successfully removed and chemical composition showed calcium oxalate monohydrate.
It was the first report of strange formed renal stone. For gallbladder stone, stone formation was sometimes a clue for suspecting the chemical composition [1, 2]. In the previous report of ureteral stones, stone surface formation might be a clue to be easily broken or not for SWL in cystine stone [3]. However, the correlation between renal stone formation and chemical stone composition was not widely accepted. Further reports about stone formation will be needed.

We herein report the first case of unfamiliar formation of renal stone.

********


********

doi:10.5348/ijcrr-2012-10-207-LE-20

********

Author Contributions
Takashi Kawahara – Conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Final approval of the version to be published
Hiroki Ito – Analysis and interpretation of data, Critical revision of the article, Final approval of the version to be published
Hideyuki Terao – Acquisition of data, Critical revision of the article, Final approval of the version to be published
Yoshinobu Kubota – Acquisition of data, Critical revision of the article, Final approval of the version to be published
Junichi Matsuzaki – Acquisition of data, Critical revision of the article, Final approval of the version to be published

Guarantor
The corresponding author is the guarantor of submission.

Conflict of Interest
Authors declare no conflict of interest.

Copyright
© Takashi Kawahara et al. 2012; This article is distributed under the terms of Creative Commons Attribution 3.0 License which permits unrestricted use, distribution and reproduction in any means provided the original authors and original publisher are properly credited. (Please see www.jcasereportsandimages.com /copyright-policy.php for more information.)

REFERENCES