Author’s response to reviews

Title: Endoscopic combined intrarenal surgery in the prone-split leg position for successful single session removal of an encrusted ureteral stent: a case report

Authors:
Daming Wang (dezhouwangdaming20@163.com)
Hongliang Sun (1169783349@qq.com)
Lei Chen (chenlei0718@sina.com.cn)
Zhiqi Liu (516749400@qq.com)
Dazhao Zhang (119827029@qq.com)
Dexin Yu (18715011486@163.com)
Demao Ding (ddmstone@163.com)

Version: 2 Date: 19 Feb 2020

Author’s response to reviews:

Dear Editor:

Thank you very much for your email dated on 3-Mar-2020 regarding our manuscript (BURO-D-19-00597R1) entitled "Endoscopic combined intrarenal surgery in the prone-split leg position for successful single session removal of an encrusted ureteral stent: a case report". We thank you and the reviewers for the helpful critiques, which substantially improve our manuscript. The response of point by point to the critiques is attached. Herein, we re-submit our revised manuscript to the Journal of BMC Urology.

We hope the current revised manuscript will be acceptable for publication in your honorable journal.

Yours sincerely,

Demao Ding, MD
For Dr. Daniele Castellani Comments:

1. **1) Abstract**
   
a. The case presentation should be modified. Data on the presenting case report are lacking. The authors should briefly describe the case (one sentence) and the surgical approach they used to remove the stent (two sentences). The conclusion needs only one sentence with the take-home message of the present case report.

Response: Thank you for your comments. The abstract has been revised as required. We rewrite the case present and conclusion in abstract, page1.

2. **2) Main Text**
   

Response: It is important to modify the correct information. We have read the literature and revised it in our article in Background, page2. We also changed the reference number 1.

3. **b. Line 47: shock wave lithotomy: please modify in shock wave lithotripsy.**

Response: We think your advice is necessary. We have modify in shock wave lithotripsy line 47.
4. c. Case description. It would be nice having CT scan images that could better depict stent calcification. Furthermore, Hounsfield Unit of both calcifications needs to be presented because it demonstrates how hard were the calcifications and predicts stone fragmentation after ESWL. If it is available, a short video clip of surgery will be more useful for readership than intraoperative figures in understanding the surgical approach. The clip can be submitted as Supplementary material.

Response: Thanks for your comments. CT image have been provided as figure 2a-b. Meanwhile, Hounsfield Unit was present in the article in background. The operation video has been uploaded.

5. d. Why was ESWL not attempted as first-line treatment? Please explain

Response: Acosta-Miranda reported that the stent encrustation was graded to facilitate the selection of treatment methods according to the imaging examination (A.M. Acosta-Miranda, J. Milner, T.M. Turk, The FECal Double-J: a simplified approach in the management of encrusted and retained ureteral stents, J ENDOUTROL 23 (2009)409-15.). For grade II and III, those with smaller stones can be removed by cystoscopy after extracorporeal lithotripsy, and those with larger stones can be removed by ureteroscopy lithotripsy or percutaneous nephrolithotomy. According to the grading method, the cases we reported in this study are grade IV.

Extracorporeal shock wave lithotripsy has a significant effect on the Grade I treatment and is a supplement for the grade II and III treatment. ESWL is not suitable in this case. the reason as follow: ESWL increase the number and cost of treatment. In addition, the treatment effect is not obvious and the stone cannot be completely removed.

For Dr. Cecilia Maria Comments:

1. The case report is not unique, and the way to solve it has already been published (Farshid S, Urol Case Rep 2019; Torricelli FMC, Urology 2017; Usui K, Hinyokika Kiyo. 2016; ...). Therefore References should be implemented.
Response: Thank you for your comments. I have read the above documents carefully and reflected them in the article.

2. Major English revision is needed

Response: Thank you for your remind. There are still some mistakes. We checked my manuscript and modified the grammar again.

3. Title: Endoscopic combined intrarenal surgery appears for the first time in the title and then no more except in the abbreviations... It's a pity, use ECIRS as acronym afterwards (otherwise remove it from the it from the abbreviations).

Response: Thanks for the reviewer's comments. The "Endoscopic combined intrarenal surgery" in the article has been modified in the background, last sentence and the abbreviation ECIRS was used in the follow.

4. Abstract, Case presentation: there is nothing about the calcified forgotten stent was managed!!!

Response: It has been modified and added in the case presentation.

5. Background: a hint to use JJ stent registries of any kind (and related citations) should be introduced.

Response: Thank you for your comments. We have added the registration instructions of ureteral stent in the background.
6. Case presentation: why do you show only X-rays? Please add images from the CT scan, possibly with contrast, also evaluating HU and shape of the stone. Preoperative antibiotic e.v. prophylaxis after therapy?

Response: CT images have been added to the article, which are respectively the renal pelvis and bladder. The average CT values of both ends are also shown in the article. The routine urine test and bacterial culture test before operation confirmed that the patient had urinary tract infection. Antibiotics were used to treat urinary tract infection to prevent the aggravation of infection and serious complications after operation.

7. Did you evaluate the risk of using a FlexX2 in parallel with the forgotten stent (with the risk of damaging it because of the narrow ureter/possibilty of calcified stent)?

Response: We are very sorry that the ureteroscope (Flex X-2™, Karl Storz, Tuttlingen, Germany) described in this article is wrong. It should be a simple ureteroscope (Karl Storz, Tuttlingen, Germany), not a flexible ureteroscope. Ureteroscopy retrograde into the renal pelvis, check ureteral conditions are good. Ureteroscopy can be used for monitoring. Flexible ureteroscope is not necessary in this operation.

8. Nephrostomy tube, which kind?

Response: The Nephrostomy tube is f14, Urovision.

9. Ureteral stent, which size and length?

Response: Ureteral stent size is F6 and the length is 28cm.

10. Discussion: why do you turn the patient for the percutaneous step instead of maintaining the same position (a modified supine one like the Galdakao modified supine Valdivia position)?
Response: Compared with the Galdakao-modified supine Valdivia position, the prone split-leg position has the following advantages: (1) The operator is familiar with the position and easy to place, the percutaneous nephroscopy puncture space is larger and the risk of visceral injury is smaller. (2) There was no obesity and cardiopulmonary disease in the patients, and prone position had no significant effect on their cardiopulmonary function. (3) Avoid long-term elevation of lower limbs and compression of blood vessels. For some patients with obesity and cardiopulmonary disease, the Galdakao-modified supine Valdivia position can be selected.

11. Discussion: discuss already published literature on the topic!

Response: Many thanks for this comment. In the discussion, we reviewed the relevant literature to discuss the case.

12. The conclusion (In summary,...): the reader does not understand whether the position or the combined endoscopic approach is the real advantage of the described approach.

Response: Thanks for your comments. The main advantages of the operation have been added to the discussion.