

Bladder Stone after Intravesical Hem-O-Lock Clip Migration 2 Years Following Laparoscopic Radical Prostatectomy

Soufiane Habyebete^{1*}, Ahmed Ameziane¹, Ali Akjay¹, Khalid Lmezguidi¹, Abdelghani Ammani¹, Jihad El Anzaoui¹

¹Urology Department, Military Hospital Moulay Ismail, Meknes, Morocco

DOI: [10.36347/sjmcr.2024.v12i05.038](https://doi.org/10.36347/sjmcr.2024.v12i05.038)

| Received: 01.03.2024 | Accepted: 05.04.2024 | Published: 17.05.2024

*Corresponding author: Soufiane Habyebete

Urology Department, Military Hospital Moulay Ismail, Meknes, Morocco

Abstract

Case Report

Intravesical Hem-O-Lock clip (HOLC) migration leading to stone formation after laparoscopic radical prostatectomy is a rare and uncommon complication. We report a case of bladder stone which developed around hem-o-lock clip 2 years after laparoscopic prostatectomy.

Keywords: Laparoscopic Radical Prostatectomy, Hem-O-Lock Clip, Metal Clip.

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Prostate cancer is the second most frequent cancer and the fifth leading cause of cancer death among men in 2020. With an estimated almost 1.4 million new cases and 375,000 deaths worldwide [1]. Radical prostatectomy by many means still the gold standard treatment in localized form. In laparoscopic technique Hem-o-lock clip are used because of their easy application and secure vascular control. Some uncommon complication like bladder neck contraction and stone formation, related to intravesical migration of HOLC, are rarely reported [2].

CASE

A 65 year old man was operated for low risk prostate adenocarcinoma by laparoscopic radical prostatectomy (LRP). 2 years after he was admitted to our clinic with a complaint of dysuria and hematuria. Bladder ultrasonography was performed showing a 1.5 cm intravesical lithiasis. The calculus was attached to the neck of the bladder (Fig 1). It was fragmented by LASER Ho: YAG (Fig 2). During the procedure the Hem-O-Lock clip was identified at the core of the calculus (Fig 3) and removed by an alligator grasper (Fig 4).



Fig. 1: calculus attached to bladder neck



Fig. 2: fragmentation by laser ho yag



Fig. 3: The hem-o-lock clip was identified at the core of the calculus



Fig. 4: Hem-o-lock clip after extraction

DISCUSSION

It seems that surgical clips can migrate and contribute significantly to the formation of bladder stones and other uncommon complications after radical prostatectomy.

Yi JS *et al.*, reported ;in a retrospective study of 641 patients; who underwent open retropubic prostatectomy (n=439), laparoscopic prostatectomy (n=49), and robot-assisted laparoscopic radical prostatectomy (n=153); two patients had a bladder stone formed around metal clip 13 and 17 month after surgery [2]. Mora *et al.*, reported a case of intravesical migration

and subsequent calculus formation with the spontaneous expulsion of a Hem-o-lok clip after LRP [2].

Other complications such as bladder neck contracture, recurrent acute urinary retention, lower urinary tract symptoms, perineal pain and spontaneous expulsion of HOLC were also reported in the literature [3, 4].

The mechanism underlying the migration of a surgical clip into the bladder is unclear [5]. Our patient was admitted 2 years after LRP for LUTS, kidneys, ureters, bladder (KUB) X-Ray was normal because the HOLC and the stone was radio-transparent, diagnosis was made by ultrasonography.

CONCLUSION

By these findings we recommend the next

- Using less HOLC and metal clip near the vesicourethral anastomosis
- Promote the use of safer energy such as ultracision if we do not want to keep neurovascular bandels.
- Thinking about clip migration when faced with unusual lower urinary tract symptoms after LRP

Funding: None

Consent: Written informed consent was obtained from the patient for publication of this case report and any accompanied images

Ethical Approval: No ethical approval needed.

Declaration of Competing Interest: The authors declare that they have no conflict of interest.

Acknowledgements: The work has been reported in line with the CARE criteria for case reports.

REFERENCES

1. Sung, H., Ferlay, J., Siegel, R. L., Laversanne, M., Soerjomataram, I., Jemal, A., & Bray, F. (2021). Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: a cancer journal for clinicians*, 71(3), 209-249.
2. Yi, J. S., Kwak, C., Kim, H. H., & Ku, J. H. (2010). Surgical clip-related complications after radical prostatectomy. *Korean journal of urology*, 51(10), 683.
3. Tugcu, V., Polat, H., Ozbay, B., Eren, G. A., & Tasci, A. I. (2009). Stone Formation from Intravesical Hem-o-lok Clip Migration After Laparoscopic Radical Prostatectomy. *Journal of Endourology*, 23(7), 1111-1113.
4. Sarkis, J., Alkassis, M., Abi Chebel, J., Tabcheh, A., & Semaan, A. (2020). Bladder stone following intravesical migration of surgical clip five years after radical prostatectomy. *Urology case reports*, 28, 101060.
5. Shin, Y. S., Doo, A. R., Cha, J. S., Kim, M. K., Jeong, Y. B., & Kim, H. J. (2012). Floating Hem-o-Lok clips in the bladder without stone formation after robot-assisted laparoscopic radical prostatectomy. *Korean Journal of Urology*, 53(1), 60.