



Functional medicine

## Renal colic with ureterohydronephrosis due to menstrual cup

Yoann Athiel<sup>\*</sup>, Laure Benoit, Lucile Pencolé

Assistance Publique Hôpitaux de Paris, Paris, France



## A B S T R A C T

We report a rare case of ureterohydronephrosis due to an improperly positioned menstrual cup.

## Introduction

Menstrual cup (MC) is a recent alternative to tampons or sanitary pads. Its insertion into the vagina permitted to collect menstrual fluid. We report a rare case of ureterohydronephrosis due to an improperly positioned MC.

## Case report

A 25-year-old woman presented to the emergency department with right flank pain. She was nulliparous, sexually active and without past medical history. She used menstrual cup since few months. Physical examination revealed significant pain in her right flank on percussion. She had no fever and urinalysis was normal except microscopic haematuria. Gynaecological examination and ultrasound were normal. Right renal colic was suspected and computed tomography confirmed the right ureterohydronephrosis (Fig. 1). This also revealed an entrapment of the low ureter due to improperly location of the MC in the vagina. No urolithiasis was visible. The patient removed MC and evolution was good with total vanishing of pain in one day. She continued to use an MC without any problem.

## Discussion

The ureters pass close to the lateral vaginal wall before their entrance in the bladder. This location explain that they could be entrapped in the MC due to suction effect. Indeed, MC should be inserted to be around the cervix. In our case, it was improperly introduced laterally.

We reviewed the literature and we found only two similar cases described.<sup>1,2</sup> In these two cases, MC removal was the management which permit vanishing of pain. The review of the literature found only one case of toxic shock syndrome associated with use of an MC.<sup>3</sup>



Fig. 1. Injected computed tomography coronal images reveal right ureterohydronephrosis. We can see the MC and the entrapment of the right ureter.

<sup>\*</sup> Corresponding author. APHP, 7 avenue de la marne, 92120, Montrouge, France.  
E-mail address: [yoathiel@gmail.com](mailto:yoathiel@gmail.com) (Y. Athiel).

## Conclusion

MC is a secure way to collect menstrual fluid with very rare side-effects.

## References

1. Stolz A, Meuwly J-Y, Roussel A, Nicodème Paulin E. An improperly positioned menstrual cup complicated by hydronephrosis: a case report. *Case Reports in Women's Health*. 2019;22. e00108.
2. Nunes-Carneiro D, Couto T, Cavadas V. Is the menstrual cup harmless? A case report of an unusual cause of renal colic. *Int J Surg Case Rep*. 2018;46:28–30.
3. Mitchell MA, Bisch S, Arntfield S, Hosseini-Moghaddam. A confirmed case of toxic shock syndrome associated with the use of a menstrual cup. *Can J Infect Dis Med Microbiol*. 2015;26(4):218–220.