Case report: Vesical stone on partially migrated intrauterine contraceptive device

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الخلاصية

المقدمة: لقد تم تسجيل عدة حالات لتكوين حصاة مثانة على جهاز منع الحمل ، إلا أن هذه الحالة لامرأة في الثامنة و العشرين من العمر تشكو من أعراض تكرار و حرقة في التبول و بينت التحاليل التصويرية و فحص تنظير المثانة عبر الاحليل أن الحصاة قد تكونت على جهاز منع الحمل مهاجر جزئيا من الرحم . الاستثناج: إن الإصابة بحصاة المثانة يجب أن يكون إحدى الاحتمالات في حالة معالجة المرضى من النساء (الحاملات

الاستنتاج: إن الإصابة بحصاة المثانة يجب أن يكون إحدى الاحتمالات في حالة معالجة المرضى من النساء (الحاملات لجهاز منع الحمل داخل الرحم) اللاتي يشكين من أعراض التهابات الجهاز البولي السفلي خصوصا عندما تكون الاستجابة للأدوية غير ذات جدوى.

any cases of migration of intrauterine contraceptive devices (IUCDs) into the bladder had been reported, crystallization and proliferation with stone formation are usual events. Such patients presented with symptoms and signs of vesical stone. We report a vesical calculus that has formed on a partially migrated IUCD. Case report: A 28-year-old married woman (gravida 7, para 7), presented with history of dysuria, intermittency, mild attacks of passing red colored urine (hematuria), frequency and suprapubic pain for one month. She had history of IUCD insertion (6) years ago.

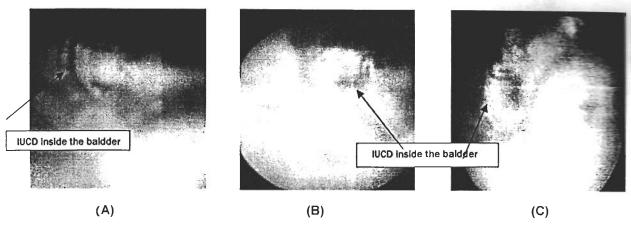
Her physical examination was normal apart from mild tenderness in the suprapubic area. The usual laboratory investigations were performed; her general urine examination revealed (>15 pus cell and microscopical hematuria), ultrasonography reported a foreign body reflection within the bladder, which could be a vesical stone, and the KUB film showed a faint radio-opaque shadow at the center of the pelvis; again, this raised the possibility of a vesical stone.

On urethrocystoscopic evaluation a fixed large vesical stone attached to the posterior vesical wall was seen, figures (A, B, C). Disintegration of the stone was performed by a lithotrite, surprisingly the stone contained a coiled tan colored wire (the T-limb of the IUCD) inside it, and the trunk of the device was just partially fixed to the posterior wall of the bladder. The stone particles as well as the device were extracted from the bladder completely figures (D,E,F) and a Foley's

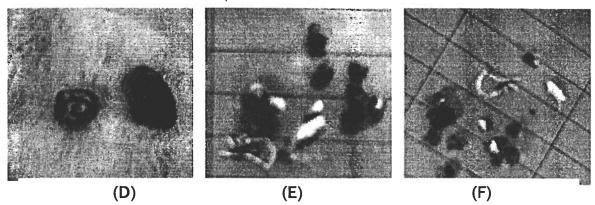
urethral catheter was put. The patient passed through a smooth postoperative period.

Discussion

Intrauterine contraceptive device considered as a cheap, safe and effective method for achieving contraception and family planning. Though there are many reported complications associating placing of these devices; such as infection, pain, migration into adjacent structures⁽¹⁾ bowel perforation uterine fistula formation⁽²⁾, even IUCD has been found in peritoneum, appendix, omentum, colon and bladder(1). The real cause behind migration of the device is still not understood yet. The duration from insertion to migration varies as well, some reported migration after months of insertion other reported years after ${\rm that}^{(3,4)}$. The presence of the IUCD inside the bladder causes irritative symptoms and provokes recurrent urinary tract infection and this will stone formation (5-7). Factors enhance contributing to the possibility of uterine perforation are; inappropriate insertion or positioning of the IUCD, fragility of the uterine wall due to recent birth and abortion or pregnancy(8). In general the migration of the IUCD and the perforation usually pass unnoticed; the diagnosis is made when the absence of the thread is noticed at routine examination and can be proved radiological examination (9) Rafique reported a case similar to ours, in which the crystallization and stone formation was formed around a partially migrated device⁽¹⁰⁾.



Figures (A, B, C): Cystoscopic pictures showing the coiled wire (arrowed) covered by a stone fixed to the posterior vesical wall.



Figures (D, E, F): The fragmented stone after disintegration with the device attached to it.

Conclusion: In a female presenting with history of IUCD insertion several years before, and recurrent lower urinary tract symptoms not responding to the usual treatment, the possibility of migration of the IUCD device should be considered as a differential diagnosis.

References

- 1. Dietrick DD, Issa MM, Kabalin JN, et al. Intravesical migration of intrauterine contraceptive device. *J Urol* 1992; 147: 132 134
- 2. Thomola JV. Perforation of urinary bladder by intra uterine device *J Urol* 1986; 27: 260 264.
- 3. Maskey CP, Rehman M, Sigdar TK, et al. Vesical calculus around intra uterine contraceptive device. *Br J Urol* 1997; 79: 654 655.
- 4. Eckford SD, Persad RA, Brewster SF, Gingell JC. Intravesical foreign bodies five years review. *Br J Urol* 1992; 69:41 50.

- 5. Lu HF, Chan JH, Chan WC, et al. intrauterine device caused vesical calculus. *Am J Roentgenol* 1999; 173: 504 505.
- 6. El-Diasty TA, Shokeir AA, Al-Gharib MS, et al Bladder stone: a case of intra vesical migration of Lippes loop. *Scan J Urol Nephrol* 1993; 27: 112 113.
- 7. Guvel S, Tekin MI, Klinic F, et al. Bladder stone around a migrating missed intrauterine contraceptive device. *Int Urol* 2001; 8: 78 92.
- 8. Junceda Avello E, Gonzalez Torga L, Lasheras Villanueva J, Quiros A. Uterine perforation and vesical migration of an intrauterine device. Case observation. *Acta Ginecol (Madr.)* 1977 Feb; 30(2):79-86.
- 9. Centen J, Chelli M. Transuterine migration of IUCD. 12 cases. *Nouv Presse Med*. Jun 7;(23); 17-5.
- 10. Rafique M, Zaidi AI. Vesical stone around a partially migrated intrauterine contraceptive device. *J P M A* 2004; 53: 373 376.