Case Report
Primary Intramural Vesical Endometriosis Mimicking Urothelial Carcinoma in a Middle Aged Female

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Citation

Abstract: Endometriosis is the presence of ectopic endometrial tissue outside the uterus. Presence of endometrial glands and/or stroma may interfere with the normal physiological process by their infiltrative nature or by forming adhesions. Endometriosis occurs in 15-20% of women of child bearing age and commonly involves the ovaries, utero-sacral ligaments, fallopian tubes, rectum, scar sites and cervico-vaginal regions. Incidence of urinary tract involvement is estimated to be 1%. We report a case of a 38 year female presenting with low back pain, single episode of haematuria and burning during micturition. Urine culture was negative. There was no past history of pelvic surgery. The general and systemic examination was unremarkable. On ultrasonography of genito-urinary tract, an irregular nodule simulating bladder tumor, measuring 1.5 cm in size, was reported. Intravenous urography confirmed irregularity in posterior wall of urinary bladder with sparing of ureters. A provisional diagnosis of urothelial carcinoma was made, transurethral resection of bladder growth was done and sample sent for histopathology. On gross examination, there were multiple tissue bits together measuring 2x1x1cm. On microscopic examination, all these bits showed sub-urothelial clustering of endometrial glands with dense intervening stroma. Many hemosiderin laden macrophages were also seen. There was no evidence of malignancy in the tissue submitted. (Photomicrograph 1,2). The patient was discharged on Gonadotropin releasing hormone (GnRH) analogues and is currently asymptomatic.

Case Report
A 38 years old female presented to the Urology OPD with complains of burning during micturition, pelvic and low back pain since 3 months. There was history of a single episode of hematuria a week prior to presentation. Urine culture was negative. Past history of surgery, especially caesarean section, was absent. The general and systemic examination was unremarkable. On ultrasonography of genito-urinary tract, an irregular nodule simulating bladder tumor, measuring 1.5 cm in size, was reported. Intravenous urography confirmed irregularity in posterior wall of urinary bladder with sparing of ureters. A provisional diagnosis of urothelial carcinoma was made, transurethral resection of bladder growth was done and sample sent for histopathology. On gross examination, there were multiple tissue bits together measuring 2x1x1cm. On microscopic examination, all these bits showed sub-urothelial clustering of endometrial glands with dense intervening stroma. Many hemosiderin laden macrophages were also seen. There was no evidence of malignancy in the tissue submitted. (Photomicrograph 1,2). The patient was discharged on Gonadotropin releasing hormone (GnRH) analogues and is currently asymptomatic.
Discussion:
Endometriosis of the urinary tract was first reported by Judd in 1921.[5] Urinary tract disease is involved in only 1% of the cases, 84% of which is restricted to the urinary bladder.[6] It exists in two forms- primary and secondary. The primary form is generally a part of generalized pelvic disease whereas the secondary is iatrogenic i.e. it follows pelvic surgery like caesarean section or hysterectomy. Diagnosis of such cases of endometriosis is difficult and delayed due to non-specific symptoms leading to significant morbidity. Cyclic haematuria is seen in only 10-20% of the patients while caesarean section in the past gives a clue to diagnosis. Imaging with CT or MRI does not add to the information obtained by ultrasonography.[7]

Differential diagnosis includes epithelial tumors of bladder and rarer mesenchymal tumors such as hemangioma, fibroma and leiomyoma which grow in detrusor. There are three theories postulated for the development of endometriosis. These include i) retrograde menstrual endometrial cell implants ii) coelomic metaplasia and iii) extension of deep adenomyosis from the uterus.[8]

Treatment varies according to the severity and site of involvement of each case. Medical therapy with oral contraceptives, Danazol, progestins and gonadotropin releasing hormone agonists have a proven beneficial role in regression of the lesion. However, aggressive surgical management is advised in patients having urinary tract involvement because the condition may lead to loss of renal functions by upto 30%.[9] Removal of ectopic tissue, relief of urinary obstruction, if present and castration with or without hysterectomy is recommended depending upon parity status of the patient.[10] Cystoscopy on follow-ups is strongly recommended, since the condition leads to recurrence and malignant transformation

Conclusion
All pre-menopausal women who present with complains of irritative urinary symptoms or hematuria with negative urine cultures should be suspected and evaluated for endometriosis. Delay in detection can lead to significant morbidity, loss of renal functions and may also lead to malignant transformation.

References