

# Polypoid cystitis masquerading as leiomyoma of urinary bladder-An unusual case report

A Gupta, S Kumar, S Gupta, N Wadhwa, M Jaura

## Citation

A Gupta, S Kumar, S Gupta, N Wadhwa, M Jaura. *Polypoid cystitis masquerading as leiomyoma of urinary bladder-An unusual case report*. The Internet Journal of Urology. 2009 Volume 6 Number 2.

## Abstract

Polypoid cystitis is characterized by urinary bladder wall thickening accompanied by a variable number of small masses that protrude from the mucosa into its lumen. We report a case of 28 year-old woman who presented with complaints of lump and pain in lower abdomen, increased frequency of micturition and occasional hematuria. FNAC from the lump was suggestive of leiomyoma but after surgery histopathological examination showed characteristic features of polypoid cystitis along with chronic cystitis in the adjoining epithelium.

## INTRODUCTION

There are few conditions that simulate bladder tumors from the standpoint of clinical manifestation, imaging, and cystoscopic findings. One of these, polypoid cystitis and its more chronic phase papillary cystitis, which results as a reaction to injury to the bladder mucosa, is a benign lesion mimicking papillary urothelial neoplasm [1]. Analogous lesions occur throughout the urothelial tract and are referred to as polypoid urethritis, polypoid ureteritis, and polypoid pyelitis when present in the urethra, ureter, and renal pelvis, respectively [2,3]. Polypoid cystitis is characterized by urinary bladder wall thickening accompanied by a variable number of small masses that protrude from the mucosa into its lumen. Compared with neoplasia, polyps may have pedunculated base of attachment and often located in the dome of bladder wall, while neoplasia are more likely to be sessile and have a predilection for the bladder neck or trigone region[4,5]. We hereby present a rare case report in which patient had symptoms and radiological features suggestive of leiomyoma but histopathological findings were reported as polypoid cystitis.

## CASE REPORT

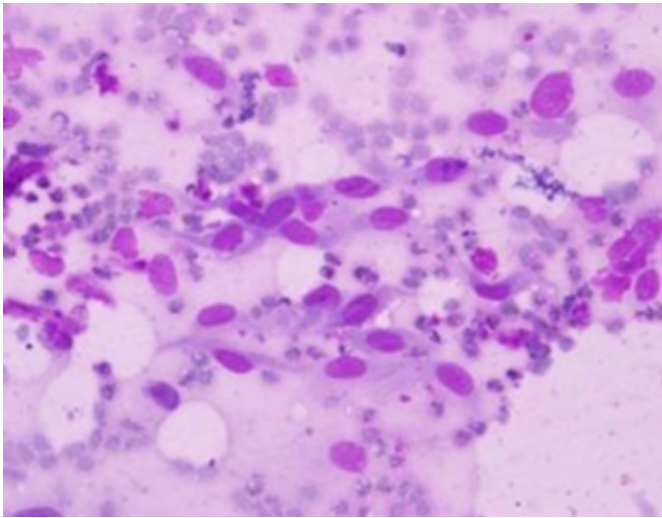
A 28 year-old woman presented with complaints of lump and pain in lower abdomen, increased frequency of micturition and occasional episodic hematuria for the past 3 months. Physical examination revealed a globular lump in the hypogastrum. Routine

urine examination showed few pus cells and was positive for

red blood cells (RBCs). Blood urea and serum creatinine were within normal limits. Ultrasonograph of abdomen revealed a large hypo-echoic mass in the bladder with reflective surface. USG guided FNAC from the lump was suggestive of leiomyoma. The smears from the localized mass lesion yielded smooth muscle fibres only. These cells were spindle shaped unlike the urothelial cells which are polygonal (Fig:1). Contrast enhanced CT scan illustrated a large moderately enhancing mass of 7 x 5 cms in size with few small non enhancing degenerative areas, arising from the bladder wall on left side and protruding into the lumen (Fig:2).

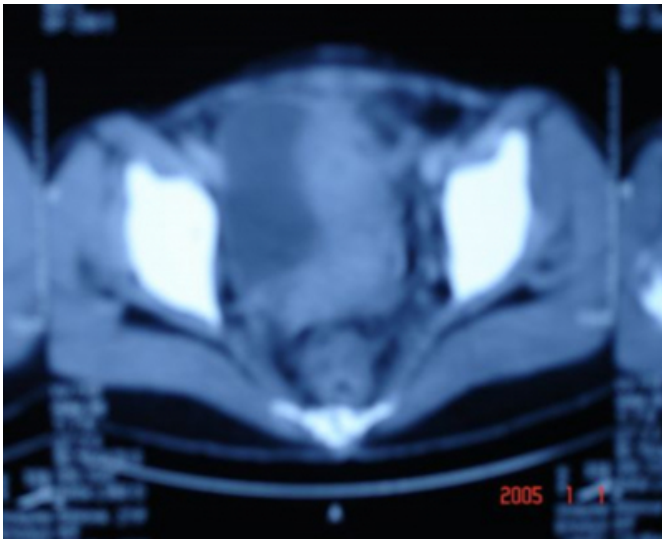
**Figure 1**

Figure 1: Spindle shaped smooth muscle cells in the fine needle aspiration (FNA) from the abdominal lump (May Grunwald Giemsa x 400)



**Figure 2**

Figure 2: CECT scan showing a large moderately enhancing mass arising from the bladder wall on left side and protruding into the lumen

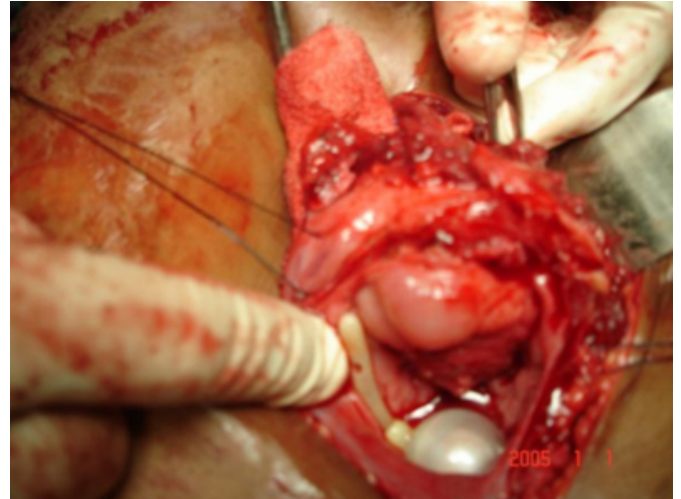


On cystoscopy, a large intraluminal mass with overlying intact mucosa was seen. Cystoscopic biopsy was done which showed only chronic non specific inflammation and resection biopsy was not done as the mass was extending transmurally. Cystoscopy and CECT scan revealed single tumor. On exploration the hard mass was seen arising from the dome of the urinary bladder extending along left lateral wall and protruding into the lumen. The overlying mucosa was smooth and both ureteric orifices were typically uninvolved (Fig:3). In view of large size of tumor and the

patient being symptomatic, keeping in mind possible diagnosis of leiomyoma, a partial cystectomy was performed with 1cm resection margins all around.

**Figure 3**

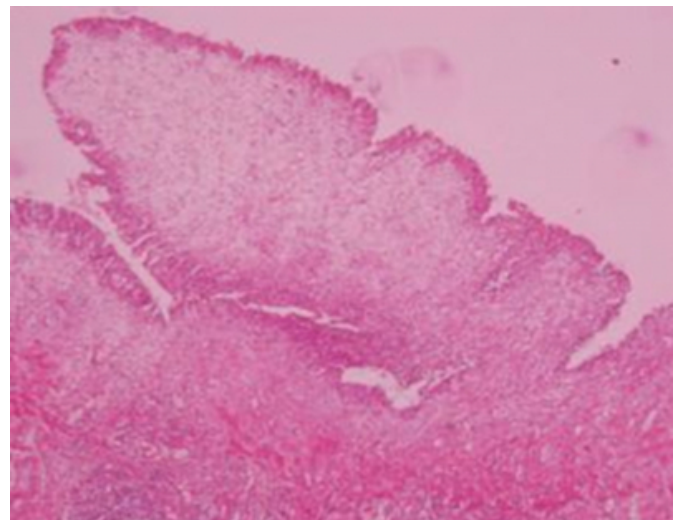
Figure 3: Intraoperative photograph showing a large smooth mass arising from dome and extending along left lateral wall of urinary bladder



Histopathological examination showed characteristic features of polypoid cystitis along with chronic cystitis in the adjoining epithelium (Fig. 4).

**Figure 4**

Figure 4: Urothelium lined polypoid structure with chronic inflammation in the lamina propria projecting into lumen of the urinary bladder (HE x 40)



Histopathological examination concluded it to be polypoidal cystitis (benign pathology) so there was no need for radical surgery. Postoperative recovery was uneventful and the patient was discharged on the fourth postoperative day.

## **DISCUSSION**

Polypoid cystitis arises as a reaction to insult to urinary mucosa. Most frequent cited etiology is the presence of indwelling catheter. It is also associated with Beckwith-Wiedemann syndrome, radiation therapy and malignant tumors. Polypoid cystitis can remain as a benign process for years, or may rarely turn into an autonomous growth and produce a solid papillary invasive tumor [6]. It occurs equally in females and males with an age range of 20 months to 79 years. Cystoscopic appearance is an area of friable mucosal irregularity or edematous broad papillae. Lesions may be multifocal and can range upto 5mm in size. Microscopically these are thin, finger-like papillae or broad based polypoid lesions with congestion and edema of lamina propria and mild chronic inflammatory infiltrate. The lining epithelium shows orderly maturation with presence of surface umbrella cells or may show metaplasia [7,8]. Polypoid cystitis is important as a differential diagnosis to bladder tumor. On the basis of clinical and radiological findings differentiation between polypoid cystitis and other benign tumors of urinary bladder may be difficult. The

importance of adequate biopsies is emphasized. In our patient the cause of polypoid cystitis was not known as there was no prior history of indwelling catheter.

## **References**

1. Delnay KM, Stonehill WH, Goldman H, Jukkola AF, Dmochowski RR. Bladder histological changes associated with chronic indwelling urinary catheter. *J Urol.* 1999 161:1106-8;
2. Fein RL, Winton L, Gomez RR, Needell MH. Bladder calculi enveloped by extensive cystitis glandularis: case report. *J Urol.* 1983 130:558-9.
3. Young, RH. *Pathology of the Urinary Bladder.* Churchill Livingstone, New York 1989.
4. Bostwick DG and Eble JN. *Non-Neoplastic disorders of the urinary bladder in Urologic Surgical Pathology.* Mosby, St. Louis, 1997.
5. Young RH.. Pseudoneoplastic lesions of the urinary bladder and urethra: a selective review with emphasis on recent information. *Semin Diagn Pathol.* 1997 14:133-46.
6. Lane Z, Epstein JI. Polypoid/ papillary cystitis: A Series of 41 cases misdiagnosed as papillary urothelial neoplasia. *Am J Surg Pathol* 2008; 32:758-764.
7. Mostofi FK. Potentialities of bladder epithelium. *J Urol.* 1954;71:705-14
8. Campbell EW, Gislason GJ. Benign mesothelial tumors of the urinary bladder: review of literature and a report of a case of leiomyoma. *J Urol* 1953;70:733.

**Author Information**

**Amit Gupta, M.S.**

Assistant Professor, Department of Surgery, University College of Medical Sciences & associated Guru Teg Bahadur Hospital

**Sunil Kumar, M.S.**

Professor, Department of Surgery, University College of Medical Sciences & associated Guru Teg Bahadur Hospital

**Sweety Gupta, M.D.**

Ex- Senior Resident, Department of Oncology, University College of Medical Sciences & associated Guru Teg Bahadur Hospital

**Neelam Wadhwa, M.D.**

Lecturer, Department of Pathology, University College of Medical Sciences & associated Guru Teg Bahadur Hospital

**Maninder Singh Jaura, M.B.B.S**

Post Graduate, Department of Surgery, University College of Medical Sciences & associated Guru Teg Bahadur Hospital