Case Report

Intestinal Type of cystitis glandularis mimicking bladder tumor- case report and review of literature

Sukriti[1], Loungani L[2], Roplekar PM[3], Mukharji S[4]

[1]Dr. Sukriti, Resident, [2]Dr. Lavina Loungani, Resident, [3]Dr. Prakash M. Roplekar, Professor and Head, [4]Dr. Snigdha Mukharji, Assistant Professor, all authors are affiliated with Department of Pathology, D.Y. Patil University, School Of Medicine, Nerul, Navi Mumbai, India.

Address for Correspondence: Dr. Sukriti, Email: sukriti23@gmail.com

Abstract

Cystitis Glandularis of Intestinal type is an uncommon proliferative disorder with metaplastic alteration of the urothelium showing mucous secreting intestinal glands in the urinary bladder. An association of Adenocarcinoma with longstanding intestinal metaplasia of urothelium is controversial. Due to lack of this evidence and prognosis, we report a case of a 16-year-old male presenting with dysuria and a space occupying lesion in the bladder masquerading as a tumor mass. Cystoscopy revealed a well-circumscribed irregular nodal growth arising from the anterior wall of the bladder. Transurethral resection of the mass was performed and the histopathology suggested Cystitis Glandularis of Intestinal Type.

Keywords: Cystitis Glandularis, Intestinal variant, Urinary bladder

Introduction

In 1761, Cystitis Glandularis was first described by Morgagni as a benign proliferative disorder of the bladder [1,2]. The pathogenesis of this condition is thought to be either congenital, that is, partial origin of the bladder from embryonal cloaca or due to chronic irritation leading to intestinal metaplasia of the urothelium [3,4].

On microscopy, two types are identified- Usual type and Intestinal type, out of which intestinal variant is relatively rare and often misdiagnosed as bladder tumour [5]. It has been postulated that intestinal metaplasia is a risk factor and precursor of Adenocarcinoma, hence prognosis may be uncertain [4,5].

We therefore report this case of Cystitis Glandularis in a 16 year old male, which was suggestive of Carcinoma on USG Abdomen.

16 year old male patient presented with dysuria and other obstructive symptoms since 2 weeks. He also had one episode of hematuria. On routine examination of urine, occult blood was positive with 20-25 RBC / HPF on microscopy. However, urine culture showed no growth. Other lab investigations like CBC and RFT were within normal limits.

Patient was sent for USG abdomen which showed a well-defined focal mass measuring 4 x 5 cm arising from the anterior wall of the bladder with peripheral vascularity, suggestive of transitional cell carcinoma.

Subsequently, Cystoscopy was performed which revealed a fibrous lesion measuring 3 x 3 x 2 cm suggestive of infective, inflammatory or neoplastic etiology. Complete resection of the mass was done. On Gross, it was a single grey- brown soft tissue irregular mamillated mass measuring 3 x 3 x 2 cm attached on one side to the bladder wall. Cut section was fleshy with few areas of hemorrhage (Figure 1 & 2).

Manuscript received: 10th January 2017
Reviewed: 16th January 2017
Author Corrected: 23rd January 2017
Accepted for Publication: 30th January 2017

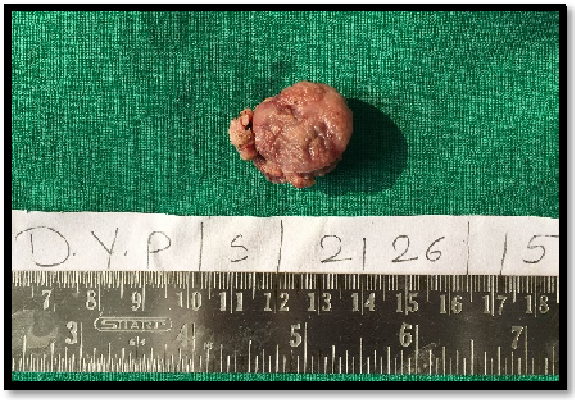

Figure-1: E/S showing a soft tissue irregular mass

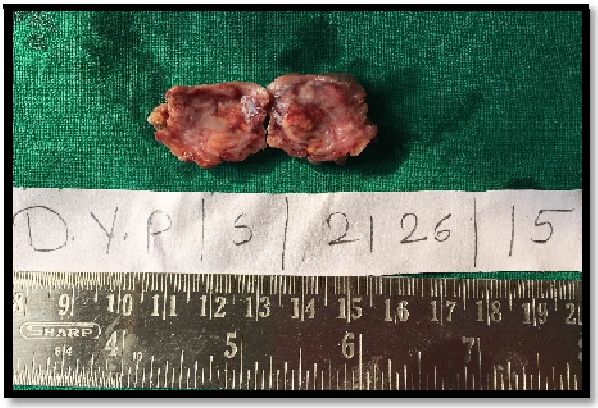

Figure- 2: C/S showing a fleshy appearance

On microscopy, ulcerated transitional epithelial lining of the bladder was seen with lamina propria showing metaplastic intestinal type of mucous secreting glands without atypia surrounded by dense chronic inflammatory cell infiltrate comprising of lymphocytes, plasma cells, histiocytes and occasional foreign-body type of giant cells along with dilated and congested blood vessels. However, there was no muscular invasion, necrosis or mitotic activity. Cystitis Glandularis of Intestinal Type was confirmed on histopathology (figure 3,4,5).

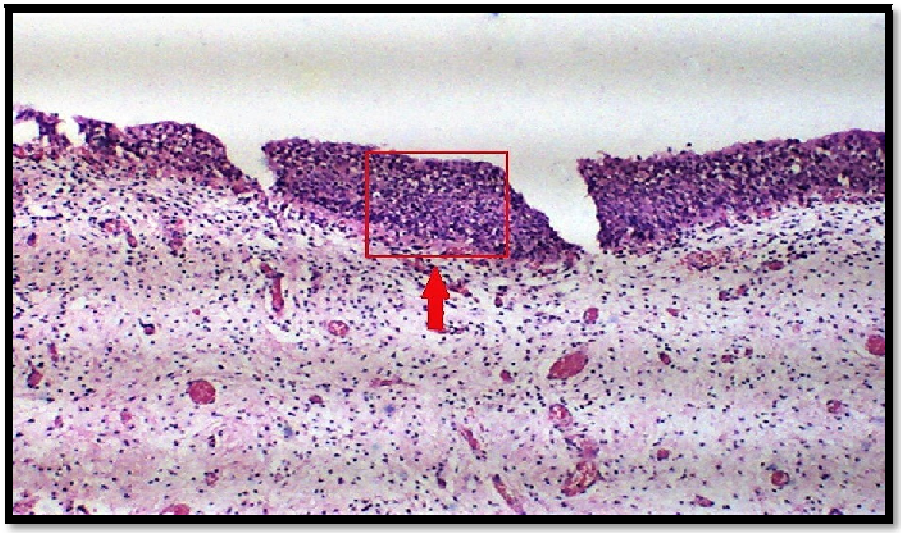

Figure-3: H & E, 10X; showing transitional epithelial lining (red box and arrow)

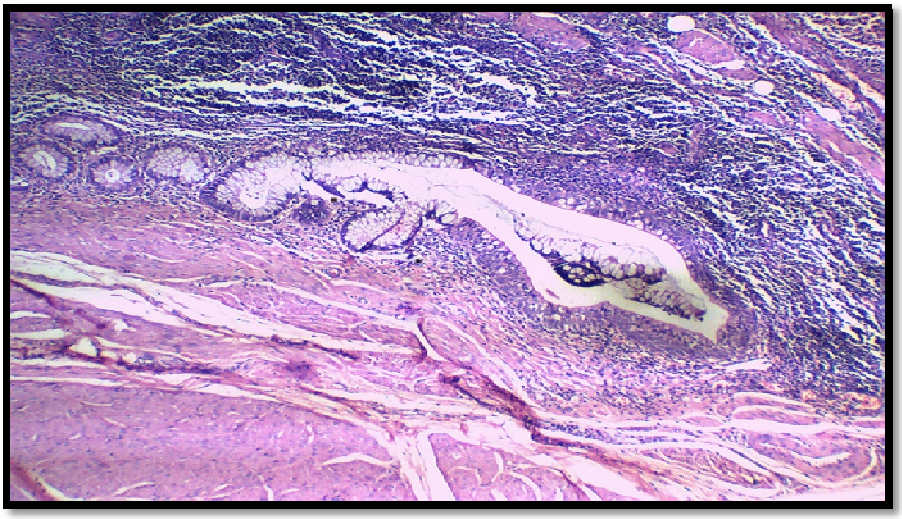

Figure- 4: H&E, 10X; showing dense lymphocytic infiltration along with intestinal type of glands

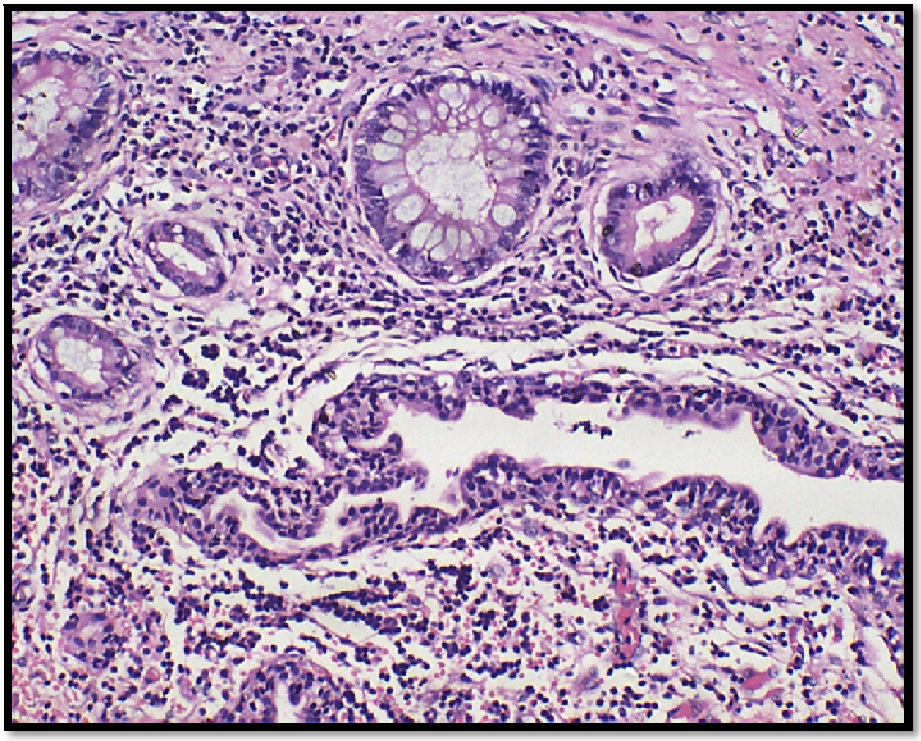

Figure-5: H&E, 40X; showing transitional epithelial lining of the Bladder with metaplastic intestinal type of glands and chronic inflammation in the lamina propria.

Discussion

Benign proliferative disorder of the bladder, Cystitis Glandularis is a rare and asymptomatic metaplastic condition which is either thought to be congenital or due to chronic irritation [1,2]. It shows a male preponderance with peak incidence in the age of 50 years [1]. However, our patient presented at the age of 16 years.

Rau et al. in his study gives an incidence of cystitis glandularis in only 0.1 - 1.9% of patients presenting clinically. However, the same study has also reported an incidence of 60 – 70% in autopsies as an incidental finding [5]. Similar findings were noted by Shigehara et al [2]. These metaplastic lesions are commonest in the trigone region of the bladder but may be extensive [5]. In our case, a space occupying lesion was seen to be arising from the anterior wall of the bladder.

Two subtypes of these lesions are recognized with distinct morphology and behavior [2,3]. The first, most typical type, is characterized by glands lined by inner columnar or cuboidal cells and peripherally by transitional cells [4,5]. The second variant, that is, the intestinal type, also referred to as intestinal metaplasia is composed of glands lined by mucinous columnar epithelium with basally located nuclei and frequent goblet cells [5,3].

The exact incidences of the above mentioned subtypes are uncertain, however, intestinal metaplasia is much less common compared to the typical variant of Cystitis Glandularis [4].

Although etiology of cystitis glandularis is not fully known, most of the patients remain asymptomatic. However, a small fraction of patients may present clinically with irritative symptoms like dysuria, urgency, frequency, hematuria and rarely hydronephrosis [5,3]. These chronic irritative symptoms may be following catheterization, stones or inflammation [5]. Our patient also presented with similar irritative symptoms and a single episode of hematuria.

Radiographically, these lesions may be picked on Ultrasonography, CT/MRI or even Cystoscopy. However, it becomes difficult to differentiate it from tumorous lesions when they manifest as a mass-like or polypoid lesion [3] as seen in our case. Due to such cystoscopic findings, these lesions are frequently diagnosed as bladder neoplasms [5].

Therefore, a Transurethral Resection (TUR) is performed in most cases for diagnosis as well as treatment of Cystitis Glandularis [2]. Another study by

Mohammed A. et al. also said that resection of the tumor in general, is sufficient to control it [1]. In occasional cases, as mentioned by Shigehara et al. patients had to undergo total cystectomy as resection did not give complete relief from the symptoms [2]. Our patient underwent a complete resection of the mass and on follow up did not show any recurrence or symptoms.

The prognosis of widespread cystitis glandularis is undetermined, with some cases progressing to adenocarcinoma [5]. The exact incidence is difficult to measure due to rarity of the cases [3]. Rau et al. have reported that Cystitis Glandularis was present in 14-67% of patients with nonurachal adenocarcinoma of bladder.

They also mentioned that in a fundal-based adenocarcinoma, presence of cystitis glandularis with atypia, rules out the diagnosis of urachal adenocarcinoma [5].

Due to similarities in their pathogenesis and the increased occurrence of adenocarcinoma in patients with cystitis glandularis, it is recommended to have a close follow up of the patients as cystitis glandularis may be a premalignant lesion [3].

Conclusion

Cystitis Glandularis of intestinal type is a very rare proliferative disorder of the urinary bladder which can occasionally mimic a neoplasm. Hence, to conclude proper evaluation of the histology of cystitis glandularis of intestinal type can help in offering the correct treatment for the patient.

Funding: Nil, **Conflict of interest:** None initiated, **Permission from IRB:** Yes

References

1. Mohamed A, Nfifakh A, Rahmani M. The Cystitis Glandularis: Report of 4 Cases. WebmedCentral UROLOGY 2012; 3 (5): WMC003432 doi: 10.9754/ journal. wmc.2012.003432.

2. Shigehara K, Miyagi T, Nakashima T, Shimamura M. Cystitis glandularis forming a tumorous lesion in the urinary bladder: A rare appearance of disease. Indian Journal of Urology. 2008 Oct 1;24(4):558.

3. Song YS, Jang KS, Jang SH, Min KW, Na W, Song SY, Moon HS, Lee TY, Paik SS. The Intestinal Type of Florid Cystitis Glandularis Mimics Bladder Tumor. Korean Journal of Pathology. 2007;41:(116)-8.

4. Sung MT, Lopez-Beltran A, Eble JN, MacLennan GT, Tan PH, Montironi R, Jones TD, Ulbright TM, Blair JE, Cheng L. Divergent pathway of intestinal metaplasia and cystitis glandularis of the urinary bladder. Modern pathology. 2006 Nov 1; 19(11):1395-401.

5. Rau AR, Kini H, Pai RR. Morphological evaluation of cystitis glandularis. Indian Journal of Pathology and Microbiology. 2009 Apr 1;52(2):203.

.....

How to cite this article?

Sukriti, Loungani L, Roplekar PM, Mukharji S. Intestinal Type of cystitis glandularis mimicking bladder tumor- case report and review of literature. Trop J Path Micro 2017;3(1):09-12.doi: 10.17511/jopm.2017.i1.02.

.....