

A Case of Polypoidal Cystitis Without History of Catheterization

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Abstract: *Polypoidal cystitis presenting without the history of bladder catheterization is rarely documented in literature and mislead to the diagnosis of papillary urothelial neoplasm. A 26 year old female came with complaints of lower abdominal pain, dysuria for 2 months and fever for a week. Imaging of the abdomen suggested multiloculated abscesses in suprapubic region with adjacent bladder wall thickening. Cystoscopy revealed a papillary lesion in the dome of the bladder. Partial cystectomy was done and microscopic examination confirmed the diagnosis of polypoidal cystitis.*

Keywords: polypoidal cystitis, bladder catheterization.

1. Introduction

Polypoidal cystitis is a nonspecific mucosal reaction due to chronically inflamed bladder. It is a benign lesion mimicking papillary urothelial neoplasm due to the papillary fronds seen grossly [1]. It occurs more commonly due to repeated catheterization of the bladder[2], only few cases have been reported in literature without the history of catheterization [3],[4]. We report one such case of polypoidal cystitis in a 26 year old female.

2. Case Discussion

A 26 year old female came with complaints of intermittent lower abdominal pain, dysuria for 2 months and had fever for a week. She had no discoloration of urine or any history of bladder catheterization. Complete blood count showed a white blood cell count of 11,480/cu mm. Other blood and urine investigations were within normal limits. Ultrasound revealed a thick walled multiloculated collection in suprapubic region with adjacent bladder wall thickening. Contrast enhanced computed tomography suggested a multi loculated abscess. Cystoscopy was performed which revealed a papillary lesion in the dome of the bladder. Microscopic examination of the cystoscopic biopsy showed features of polypoidal cystitis. Diagnostic laparotomy followed by partial cystectomy was performed. The resected specimen was sent for histopathological examination

Grossly, multiple grey white soft tissue masses largest measuring 6x4x2cm with mucosal surfaces showing multiple papillary fronds (Fig 1) and omentum measuring 17x7x2cm were received. Microscopic examination of the resected bladder showed a broad based papillary projections with hyperplastic transitional epithelium overlying oedematous stroma with congestion and inflammatory cell infiltration. There was no evidence of atypia (Fig 2 to Fig 4). Diagnosis of polypoidal cystitis was confirmed. Histopathological examination of omental adhesions revealed sclerosing peritonitis. Post-op was uneventful and the patient recovered without any complications after 3 months of follow-up.

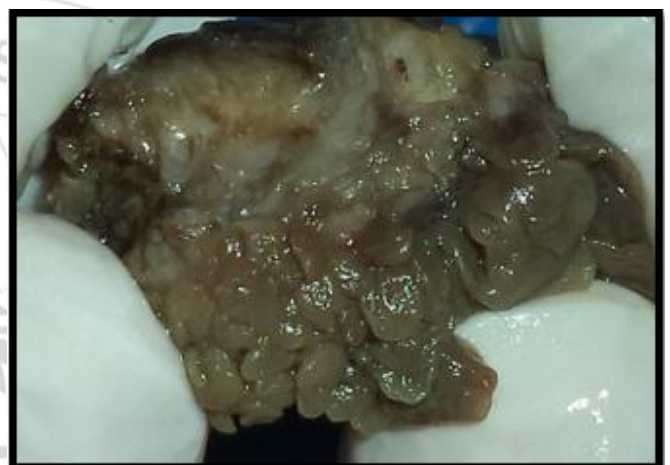


Figure 1: Multiple broad based papillary fronds

3. Discussion

Polypoidal cystitis occurs as an exophytic inflammatory lesion noted in the mucosa of the urinary bladder [5]. It is more commonly seen in the dome or posterior wall of the bladder [2]. In our patient it presented in the dome of the bladder. The most common risk factor is indwelling catheterization of the bladder but few cases have been reported in literature without this history. The other causes includes colovesicular fistulas, radiation therapy, urinary stents and calculi [1]. Our patient had none of the risk factors mentioned. The imaging features of cystitis are nonspecific and it is difficult to distinguish one form of cystitis from another, radiologically. The bladder wall thickening is similar to the changes that are seen in bladder carcinoma [4], [5].

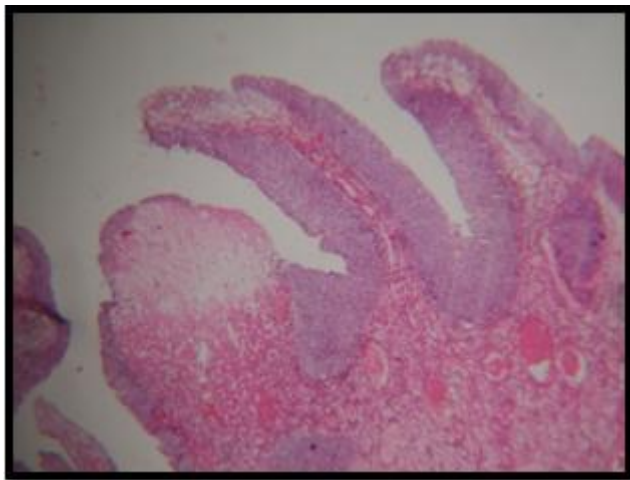


Figure 2: Photomicrograph showing hyperplastic transitional epithelium with oedematous stroma and congestion. (10x)

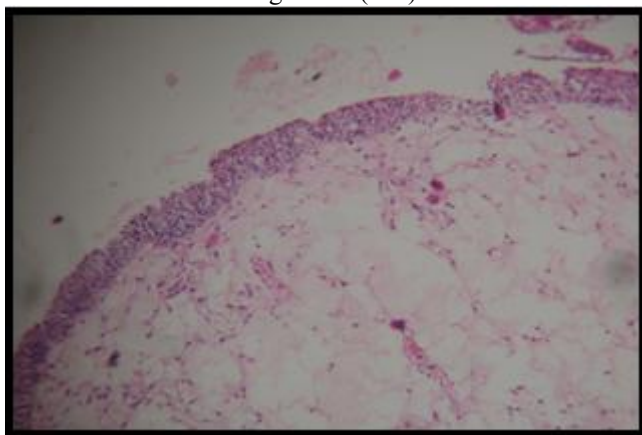


Figure 3: Photomicrograph showing oedematous stroma with inflammatory cell collections.

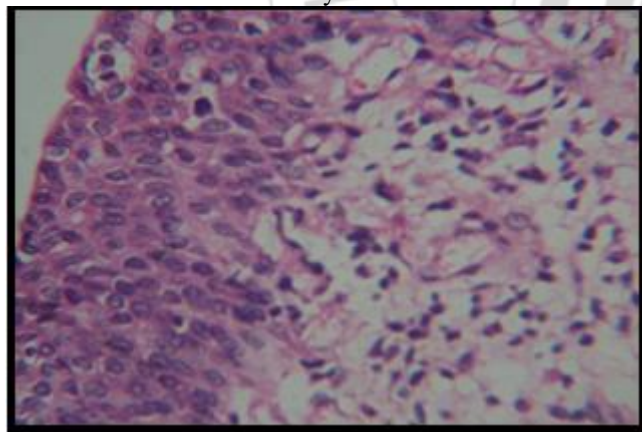


Figure 4: Photomicrograph showing inflammatory cells. No atypia seen

Histopathological examination is the definitive diagnosis of polypoidal cystitis. Grossly the papillary fronds may mislead to the diagnosis of papillary urothelial neoplasm. But microscopic examination reveals a oedematous, congested and inflammatory cell infiltration in the lamina propria. The fibrovascular cores are simple, non-branching and broad based [6]. Whereas in papillary urothelial neoplasm the papillary fronds are delicate with branching architecture and the urothelium is dysplastic with absence of umbrella cells, oedema and inflammatory cell infiltration.

To conclude, if papillary fronds are seen macroscopically in the bladder, polypoidal cystitis should be thought of even in the absence of history of bladder catheterization and biopsy should be advised. Histopathological examination is essential for the definite diagnosis.

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