Volume : 5 | Issue : 6 | June 2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 69.48

Research Paper

Spontaneous Urinoma in Post Abdominoperineal Resection – A Case Report & Review

Medical Science

KEYWORDS : Urinoma, Abdominoperineal Resection, Retroperitoneal

Dr Mukesh Kulhari	Junior Resident, Department of General Surgery, SMS Medical College & Hospital, Jaipur
Dr Akshay Mangal	Senior Resident, Department of Surgical Oncology, SMS Medical College & Hospital, Jaipur
Dr Raj Govind Sharma	Head of Department, Department of Surgical Oncology, SMS Medical College & Hospital, Jaipur
Dr Suresh Singh	Associate Professor, Department of Surgical Oncology, SMS Medical College & Hospital, Jaipur
Dr Pinakin Patel	Assistant Professor, Department of Surgical Oncology, SMS Medical College & Hospital, Jaipur
Dr Abdul Rauf Gauri	Junior Resident, Department of General Surgery, SMS Medical College & Hospital, Jaipur
Dr Shiv Singh	Junior Resident, Department of General Surgery, SMS Medical College & Hospital, Jaipur
Dr Pankaj Somani	Junior Resident, Department of General Surgery, SMS Medical College & Hospital, Jaipur

ABSTRACT

Urinoma is a collection of urine in encapsulated form resulting by leakage of urine from ureter or renal pelvis or renal calyces. This extravasated urine causes dissolution of retroperitoneal fat & becomes encapsulated by body immune system. Here we report a case of post abdominoperineal resection urinoma in a 45 year old female who presented with complaints of abdominal lump and pain in abdomen. Radiological investigations were suggestive of large retroperitoneal urinoma which was managed by percutaneous pigtail catheter drainage.

Introduction

Urinoma is an encapsulated collection of extravasated urine due to leakage from ureter or renal pelvis or renal calyces, located in perirenal space & rarely in retroperitoneal, peritoneal, pleural cavity or even in mediastinum[1,2]. The possible pathophysiology of spontaneous urinoma is pyelosinus backflow of urine due to rising intrapelvic pressure (more than 35cm of H20) with subsequent multiple rupture or porosities at calyceal fornices & extravasation of urine through sinus and renal capsule[4,5]. Trauma and obstructive uropathies i.e. ureteral stones, tumor of ureter and bladder [3,] pregnancy and pelvic mass are causative factors of urinoma formation[4]. We report a case of large size urinoma in a post abdominoperineal resection female with recurrence of tumor involving urinary bladder and right ureter, diagnosed by radiological imaging.

Case report

A 45 year old female patient presented with complaints of abdominal swelling on right side and generalized vague pain in abdomen. She had history of abdominoperineal resection one year back followed by six cycles of chemotherapy, with no history of any kind of trauma, burning micturition, urinary tract infection, and no documented stone disease. Clinical examination revealed fullness of abdomen, mild tenderness in right flank and also a soft large abdominal lump extending from right hypochondrium to upper pelvis. Lump was 30*16 cm in size, single, cystic in consistency with smooth and diffuse margins and it was not fixed to skin. Routine blood investigations, electrocardiogram was within normal limits. Abdominal sonography showed large fluid filled cystic mass, 26*14 cm in size, with echoes, multloculated extending from epigastrium to pelvis without vascularity and right side hydronephrosis. A complimentary contrast enhanced computer tomography was done with iodinated contrast which showed heterogeneous density cystic lesion extending along right lateral wall of pelvis and right lateral wall of urinary bladder to right lung field with approximate size of 332*172*170mm suggestive of urinoma or retroperitoneal cyst. The Cystic mass was displacing right kidney anteromedially, moderate dilatation of right pelvicalyceal system ,moderate pleural effusion with nodular lesion along bilateral pleura ,few hypodense foci in both lobe of liver suggestive of lung and liver metastasis. Another heterogeneous soft tissue density mass of 9.0*8.2*9.0cm size in pelvis extending to gluteal region with lost fat planes with urinary bladder and bowel loops suggestive of recurrence.



Fig 1 - Contrast enhanced computer tomography showing

Volume : 5 | Issue : 6 | June 2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 69.48

large cystic mass of 33*17*17 cm size extending from right hypochondrium to pelvis.



Fig 2 –Contrast enhanced computer tomography urography showing collapsing urinoma with pigtail catheter and soft tissue mass in pelvis on right side of bladder and pelvis.

Ultrasonography guided pigtail catheter placement was done in cystic mass and approximately 4500ml amber colored clear fluid was drained with collapse of cavity . Routine examination of the fluid revealed trace amount of sugar, +++ protein, urea (35mg/dl) and creatinine (3.72mg/dl). Culture sensitivity report was sterile. Contrast enhanced computerized tomography urography after one week of catheter placement showed 94*87*90mm soft tissue pelvic mass with 9.0*7.9*10.2 cm urinoma. Ureteric stent placement was done on right side ureter. After two weeks, repeat zoography showed complete collapse of cavity.

Discussion

Urinoma (pararenal or perirenal pseudocyst) is the result of extravasation of urine in retroperitoneal space [6]. It may be unilateral or bilateral. It is mainly caused by external trauma to urogenital tract or endosurgical procedure [7]. Other causative factor is obstructive uropathy like pelvic mass, UPJ obstruction, congenital urethral disease, enlarged prostate and pregnancy[8]. Association of recurred tumor after abdominoperineal resection causing urinoma is rare. Obstruction leads to increased intrapelvic pressure, pyelosinus back flow and subsequent increased porosities of calyceal fornices resulting in extravasation of urine [9].

Initial investigation in a suspected case of urinoma is ultra sonography of abdomen complimented by computer tomography scan of abdomen. Computer tomography can better explain the relationship between urinoma and urogenital tract with fascial planes[9]. An untreated urinoma can lead to serious complications such as perinephric abscess, urinary granuloma, paralytic ileus, retroperitoneal fibrosis, electrolyte imbalance and systemic sepsis[10].

Management of urinoma depends upon size and associated complaints. If it is small in size, it should be managed conservatively. If it is large and symptomatic, not decreasing in size with time , ultra sonography or computer tomography guided percutaneous catheter drainage in most dependent position is done. If complete resolution does not occur with catheter, ureteric stent may be considered[10].

Conclusion

Urinoma formation in a post abdominoperineal resection patient with recurrence of disease is a rare condition which needs prompt diagnosis and management to prevent serious complication and preserve renal function as well.

References-

1) Puri A, Bajpai M Gupta AK: Bilateral spontaneous perinephric urinomas: case report and review of literature.Urology2004; 64(3):590-1.
2) Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing and Allied Health Seventh Edition 2003by Saunder, an imprint of Elsevier inc.
3) Fujita k, Sugao H: Tsujykawa K: Perinephric urinoma secondary to neurogenic bladder with vesicouretral reflux: Report of an adult case. Int J Urol2004; 11:53-5.
4) Robert JA. Hydronephrosis of pregnancy.Urology1976; 8:1-4.
5) Dhabuwala CB, Riehle RA Jr. Spontaneous rupture of a hydronephrotic kidney during pregnancy.Urology1984; 24:591-4.
6) Arnold EP. Pararenal pseudocyst.Br J Urol 1972; 44:40-6.
7) Gayer G Hertz M Zissin R Ureteral injuries: CT diagnosis. Semin Ultrasound CT MR 2004; 25:277-85.
8) McInerney D Jones A Roylance J. Urinoma. Clin Radiol1977; 28:345-51.
9) Ghali AM,El Malik EM,Ibrahim AI, Ismail G,Rashid M .Ureteric injuries:Diagnosis,management, and outcome.J Trauma1999;46:150-8.
10) McAnirch JW, Santucci RA.Genitourinary trauma.In: Walsh PC, editors. Campbell's Urology.Philadelphia, Pa: Saunder; 2002.p.3721-7.