

Drugs as a Cause and Treatment for Tumor Eosinophilic Cystitis in Surgical Cases Reported

Firas F. Almamori, Fatima A. Alzubaidi, Amal Talib Al-Sa'ady ,Ghada Hamid

College of Pharmacy, University of Babylon, Hilla , Iraq.

Correspondence should be addressed to Firas F. Almamori

Abstract:-

Three cases reported as Eosinophilic cystitis in Hilla hospital. The cases were coming with a mass in the bladder wall and they were simulated the bladder tumors, in the presentation, in the clinical, examination in the local invasions to the bladder wall and the intramural part of the urethra. The accurate diagnosis was depending on cystoscopic biopsy deep to the lesion and from multiple areas of the involved bladder wall. The progress of the lesion is similar to the bladder carcinoma; the treatment is similar to the bladder new growth. The cases reported in the literature in children and adult, some of the cases revealed allergic history to drugs or food.

Keywords: Steroid, Eosinophilic Cystitis, Tumor, Surgical cases report

INTRODUCTION:-

Eosinophilic cystitis (EC) is predominantly characterized by way of transmural irritation of the urinary bladder commonly with considerable local eosinophilic infiltration with entire fibrosis of the urinary bladder ensuing in unconstructive nephropathy with wide variable ranges of renal failure. Eosinophilic cystitis has a broad spectrum of pathologic and clinical presentations, starting from not severe cystitis to extreme persistent or chronic inflammation. (1,2).

Despite eosinophilic cystitis can be faced in any age group, it is most common in adults) and it was reported since 1960s and the cases were reported increasingly in last years, the etiology and treatment still imperfectly understood and the known mechanism of the Eosinophilic cystitis remains need to more clarification but probably stimulated by a regulatory disorder of the immune system. Generally , numerous etiologic agents have been associated with it, such as bladder tumor, chemotherapeutic agents, allergy to food and drugs, bladder trauma, parasitic infections and some drugs (3,4). Benign bladder tumors associated with eosinophilic infiltration are rare in the children and with an incorrect diagnosis as malignant lesions. Usually, even experienced pathologist has taken into his account that, the distinguishing among eosinophilic bladder tumors , malignant tumors and a others inflammatory myo-fibro-blastic tumors is difficult (5,6). In general, Cystoscopic abnormalities include a broad spectrum of inflammatory bladder tumors with eosinophilic infiltration, may be with or without a mass. While, eosinophilic granulomatous cystitis is usually with a mass due to asymmetrical and irregular appearance of the thick bladder wall. Thus, eosinophilic lesions most probably appear as a diffused eosinophilic inflammation of the bladder wall with no mass (3,5,7). The basic diagnosis of Inflammatory eosinophilic tumors is depending on histo-patho-logical study. But, the tissue biopsy was necessary in order to get confirmly diagnosis of bladder lesions. Furthermore, the selection of suitable management. On the other hand, Because Eosinophilic cystitis should be without a mass, the presence of mass must be considered as inflammatory eosinophilic tumor.(5, 6,8,9).

PATIENTS CASES :-

Case (1)

A Forty five years old lady from a rural area as presented with a 5 months history of hematuria, and several episodes of acute urinary retention, dysuria, urgency, frequency, and lower abdominal discomfort, with recurrent attacks of urinary tract infection, she was received courses of antibiotics. She was allergic to penicillin, but she had no history of allergy to other drugs or food allergy. There was no finding in the clinical examination. Urine examination revealed full r.b.c.s and pus cells. Blood examination

was normal except low Hb. IVP was not performed because of her allergy to penicillin. U/S revealed a filling defect at the posterior wall of the bladder. Cystoscopy under general anesthesia was performed, and there was an ulcerated mass of 2x2 inch in size involving the posterior wall of the bladder. The urothelium was looking velvety and erythematous. A biopsy was performed, the bimanual the pelvic examination was confirmed the existence of the tumor mass.

The histopathological result revealed (inflammatory cells infiltration to bladder wall), it was not convincing result, partial resection was performed (as a case of bladder carcinoma), histopathology revealed, (heavily eosinophilic cells infiltration to whole thickness of the bladder wall with inflammatory cells infiltration).

She was discharged with non-steroidal anti-inflammatory drugs with symptomatic response. 6 months later, the patient was coming to the hospital with suprapubic urinary fistula, the fistula was never closed in spite of long-term of indwelling urethral catheterization and antibiotics for infections, later on, the patient was developing renal failure, and was followed by death.

Case (2)

A sixty years man, he grow to be admitted to the health facility with haematuria, frequency, and dysuria with palpable suprapubic mass.No history of allergy to drugs or food examination and blood examination revealed no abnormal findings, other than r,b,cs and few pus cells in the urine, IVP ,U/S, confirmed the presence of the bladder mass, cystoscopy and biopsy performed the histopathological results revealed eosinophilic cells infiltration to the whole bladder thickness Endoscopic fulguration to the bladder tumor was performed, corticosteroids were given for 6 weeks, the patient showed some symptomatic relieve, regression of the tumor mass was observed by U/S after6weeks. 3months later, the patient was come with the same urinary symptoms as the first visit, with an increase in the size of the bladder mass. Partial bladder resection was suggested for him, but the patient was disappeared.

Case (3)

A Fifty six years old woman, she was known a bladder carcinoma patient, and she was undergoing endoscopic tumor resection and was followed by Deep-X- therapy. 6 months later, she was presented herself with frequency, urgency, and haematuria. Cystoscopy was performed, an erythematous mucous membrane with ulcerations to the bladder dome. Biopsy and fulguration were performed; the histopathological result was revealed heavily infiltration of eosinophilic cells to the bladder wall. There was no history of allergy to drugs or allergy to food, peripheral blood examination revealed no eosinophilia, urine examination revealed

heavy r,b,c, and pus cells. The patient underwent on corticosteroids treatment on tapering doses for 6 months, with antibiotic (there was an infection). The patient remained free of symptoms, for 9 months after the termination of the steroid treatment. We lost the chance to see the patient again.

DISCUSSION:-

An eosinophilic cystitis is an unusual form of cystitis which is characterized by frequency, urgency, dysuria, haematuria, suprapubic pain or discomfort, and urine retention (some time). It is unusual bladder lesion of unclear etiology first described in 1960. It is a rare tumor-like appearance the disease may mimic an invasive bladder tumor. 50% of the reported cases were giving a history of haematuria [6, 7].

Children and adults of both sexes are involved, (EC) has symptoms similar to interstitial cystitis, The ache from EC is regular and unrelenting, very tough to govern, the bleeding may be profuse at the time.[12] The etiology of the disease is not clear, However in the experience of others, in maximum cases, the reason of EC is understood [6]. Chemotherapy and radiation treatment are recognized reasons, and it's miles suspicious that it other medicinal drugs may be a factor. When there may be no acknowledged motive for EC, a few others suppose that it can be an autoimmune disorder [15].

Most times when the cause is unknown, the treatment can as simple as getting rid of or controlling that cause accompanied through a direction of excessive, tapering dose of corticosteroids[16]. Chemotherapy and radiation treatment are recognized reasons, and it's miles suspicious that it other medicinal drugs may be a factor. When there may be no acknowledged motive for EC, a few others suppose that it can be an autoimmune disorder

Most times when the cause is unknown, the treatment can as simple as getting rid of or controlling that cause accompanied through a direction of excessive, tapering dose of corticosteroids.[11] Partial cystectomy some time performed for the affected area, DMSO treatment some time helpful [12].

With EC, those blood cells attack the bladder. Ulcers in the bladder expand very slowly. There may be intervals while the ulcer stops enlarging, but they never heal. Because of these ulcers, bleeding is a primary symptom of EC, and the hazard of perforation is continually a problem. 10 Resection is done to sluggish the development, and cauterizations manipulate the bleeding

EC is without difficulty diagnosed and recognized with biopsy if EC gift, the deeper muscle mass might be loaded with eosinophils[13]. With EC, those blood cells attack the bladder. Ulcers in the bladder expand very slowly. There may be intervals while the ulcer stops enlarging, but they never heal. Because of these ulcers, bleeding is a primary symptom of EC, and the hazard of perforation is continually a problem. 10 Resection is done to sluggish the development, and cauterizations manipulate the bleeding

EC is without difficulty diagnosed and recognized with biopsy if EC gift, the deeper muscle mass might be loaded with eosinophils. Some human beings consider, that EC with unhealed ulcers might also end up cancerous, or would possibly spontaneously unfold to unique organs, in truth, so little is known due to the fact so few people have this illness. [13]

However, patients who underwent treatment from EC, and recovered the disease, they should be put under follow up, bladder washings and urine cytology 3 times a year, a CT scan twice a year, and biopsy once a year, this is to test for cancer. Patients

with EC are probably examined for just about each hypersensitive reaction acknowledged to man [11]. In patients how had severe EC, partial or total cystectomy could be performed, There is the possibility of eosinophilic cells infiltration attack and destroy the new ladder (segment of colon or ileum) [12], eosinophilic cells might infiltrate and destroy the kidneys. EC in children could be self-limited, and spontaneously recovered diseases [17,18].

CONCLUSION:

The offering signs and symptoms are frequency, dysuria haematuria, suprapubic pain or soreness, and urine retention. Biopsy should be taken deep and from different areas of the lesion. The treatment of preference is radical transurethral resection of the lesion inside the bladder with an aggregate of corticosteroids and antihistamines

Antibiotics are given while a urinary tract contamination gift, or when dilatation of higher urinary tract exists. Most sufferers are cured but recurrence is frequent locating. The treatment of desire is radical transurethral amputation of the lesion inside the bladder with a combination of corticosteroids and antihistamines.

REFERENCES:

1. Avishalom Pomeranz, Alon Eliakim, Yosef Uziel, Giora Gottesman, Valeria Rathaus, Tanya Zehavi and Baruch Wolach(2001) Eosinophilic Cystitis in a 4-Year-Old Boy: Successful Long-Term Treatment With Cyclosporin A. Pediatrics, DOI:10.1542/peds.108.6.e113;108:e113.
2. Manimaran D, Karthikeyan T M, Sreenivasulu M, Mrinalini V R, and Gopinath V (2013) Eosinophilic Cystitis Mimicking Bladder Tumour – A Rare Case Report. J Clin Diagn Res. 7(10): 2282–2283.
3. Van den Ouden D.(2000)Diagnosis and management of eosinophilic cystitis: a pooled analysis of 135 cases.pubmed. Eur Urol.;37(4):386-94.Teegavarapu PS, Sahai A, Chandra A, Dasgupta P, Khan MS.(2005) Eosinophilic cystitis and its management. Int J Clin Pract.;59(3):356-60.
4. Ming Liu, Yu-Zhen Zhang, Yu-Hua Li, Hua Xie (2007) Eosinophilic cystitis in nine children. World J Pediatr, 3(3): 222-225.
5. Daniel Chia(2016) Eosinophilic cystitis and haematuria: Case report of a rare disease and common presentation. Int J Surg Case Rep. 2016; 24: 43–45.
6. Itano NM, Malek RS.(2001) Eosinophilic cystitis in adults. J Urol ;165:805-807.
7. Netto JM, Perez LM, Kelly DR, Joseph DB.(1999) Pediatric inflammatory bladder tumors: myofibroblastic and eosinophilic subtypes. J Urol;162:1424-1429.
8. T. Tasaka; Y Matsuhashi; H Ohnishi; Y Kubota(2008) Eosinophilic cystitis following cord blood transplantation: a form of acute GVHD. A variant of hemorrhagic cystitis after hematopoietic SCT or drug-induced?. *Bone Marrow Transplantation* volume 42, pages 495–496.
9. Brown EW: eosinophilic granuloma of the bladder, J Urol 1960; 83 665-668.
10. Palubinskas AJ: EC Radilogy 1960: 75:589-591.
11. EC not that uncommon. Derasia A, Kekre NSDate A, Pandey AP, Gopalakrishman G. Scand, J Urol Nephrol 1999 Dec; 33(6): 396-9
12. Diagnosis and management of EC ven den Oden D. St Clara hospital Rotterdam, The Netherland. Eur Urol 2000 April, 37 (4): 386-99
13. Petron NE .Eisinophilic cystitis. J Urol 1985; 2 167-169.
14. EC in adults, Latano NM, Malek RS. JUrol 2001 Mar;165(3) :802-7.
15. EC initial diagnosis of invasive bladder tumor.Gogus Turkolnezk, Tulunay O, Gogus O, Int Urol2000;64(3):162-4.
16. Watson HS.Recurrent EC, a case responsive to steroids J Urol 1992: 147(3):689-691.17
17. Tumor forming EC in children Gerhaz Ew,Grueber M, Mmleecos MD,Weingarerter K,Barth P ,Riedmiller H, Eur Urol 1994;25 (2):138-41
18. EC in children, Sutphin M, middleton AW Jr, J Urol 2001 Mar; 165 (3):802-7