

CASE REPORT

DOI: 10.5336/caserep.2022-92583

Incidentally Diagnosed Bladder Xanthoma in a 38-Year-Old Man

¹Abdullah İLKTAÇ^a, ²Ganime ÇOBAN^b, ³Emin Cenani COŞKUN^a

^aDepartment of Urology, Bezmîâlem Vakıf University Faculty of Medicine, İstanbul, Türkiye

^bDepartment of Pathology, Bezmîâlem Vakıf University Faculty of Medicine, İstanbul, Türkiye

ABSTRACT Xanthoma is a benign lesion characterized by the localized collection of lipid-containing histiocytes. It is mostly observed in patients with hyperlipidemia but can also be found in patients with normal lipid profiles. It is very rarely detected in the bladder. Xanthoma may be associated with bladder tumor or it can be seen isolated. Most of the cases in the literature are elderly patients. Isolated bladder xanthoma is mostly detected incidentally in cystoscopy performed for complaints like hematuria and lower urinary tract symptoms. A large lesion can be detected in radiological imaging and mistaken for a bladder tumor. We present a case of urinary bladder xanthoma incidentally detected in a 38-year-old man.

Keywords: Xanthomatosis; urinary bladder; cystoscopy

Xanthoma is the localized collection of lipid-containing histiocytes in tissue. It is a benign condition characterized by reactive histiocytic proliferation due to the alterations in serum lipid metabolism and develops mostly in primary and some secondary (e.g., primary biliary cirrhosis, diabetes mellitus) hyperlipoproteinemias.¹ However, it can be observed in patients with normal blood lipid profiles. Xanthoma most commonly occurs in the skin, subcutaneous tissue and tendons.² They are very rarely located in the bladder. Most of the cases in the literature are elderly patients, there is only one case under the age of 40. Here, we present a case of urinary bladder xanthoma incidentally detected in a 38-year-old man.

CASE REPORT

A 38-year-old male patient admitted to the internal medicine outpatient clinic with the complaint of abdominal pain for 3 days. The patient had no complaint of hematuria or lower urinary tract symptoms. Physical examination was unremarkable. Urinalysis, complete blood count, creatinine and fasting blood sugar levels were within normal limits. Abdominal

ultrasonography was performed and an 8 mm polypoid mass was detected on the left posterolateral side of the bladder. The patient was referred to the urology clinic. No lesion was detected in the bladder in the computed tomography urography. Cystoscopy was performed and an 8-mm yellowish papillary lesion was observed at a distance of 1 cm lateral to the left ureteral orifice (Figure 1). The lesion was resected. The urethral catheter was removed and the patient was discharged on the first postoperative day with no complications. Histiocytes with foamy cytoplasm infiltrating lamina propria under a normal urothelium were detected in histopathological examination (Figure 2). The diagnosis was xanthoma.

Informed consent was obtained from the patient for publication of this case report.

DISCUSSION

Xanthoma is a non-neoplastic lesion which is very rarely observed in the bladder. In the PubMed/MEDLINE database there are 12 case reports presenting 14 patients and an article evaluating 17 patients written in English.²⁻¹⁴ It is most commonly

Correspondence: Abdullah İLKTAÇ

Department of Urology, Bezmîâlem Vakıf University Faculty of Medicine, İstanbul, Türkiye

E-mail: abduhilktaç@hotmail.com

Peer review under responsibility of Türkiye Klinikleri Journal of Case Reports.

Received: 25 Jul 2022

Accepted: 14 Sep 2022

Available online: 19 Sep 2022

2147-9291 / Copyright © 2022 by Türkiye Klinikleri. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).





FIGURE 1: Yellowish papillary lesion located lateral to the left ureteral orifice.

found in elderly patients. Majority of the cases in the literature are ≥ 50 years old. The patient in our case was 38 years old, and as far as we know, he is the second youngest patient in the literature to be diagnosed with bladder xanthoma after a 34-year-old patient presented by Raghavendran et al.³ Xanthoma may be associated with bladder tumor or it can be found isolated. In the only series about this subject Yu et al. evaluated 17 patients with bladder xanthoma and reported that xanthoma was usually associated with low grade urothelial cancer.² However, cases associated with high-grade bladder tumors have been reported in the literature also.^{4,7} Isolated bladder xanthoma is mostly detected incidentally in cystoscopy performed for complaints like hematuria and lower urinary tract symptoms.² It is difficult to determine whether or not these complaints are because of xanthoma. Sometimes, a large lesion can be detected in a radiological imaging performed for other medical

reasons and may be mistaken for a bladder tumor. Of the 31 patients reported in the literature, 17 were associated with bladder tumors and 14 were isolated. In this case, cystoscopy was performed when a suspicious mass was detected on ultrasonography in the patient with abdominal pain. The patient did not have any urinary symptoms.

It has been suggested that xanthoma is associated with hyperlipidemia, but it can also be seen in patients with a normal lipid profile. Our patient did not have any underlying lipid metabolism disorder and the blood lipid profile obtained after the diagnosis was normal. In the series of Yu et al. 10 of the 17 patients had underlying lipid metabolism disorder.² However, when the case reports were evaluated, only 3 patients reported in 2 case reports had underlying lipid metabolism disorders.^{5,7} There is no medical treatment available for treating xanthoma. Punch biopsy can be used to obtain a definitive diagnosis. Surgical resection is both diagnostic and therapeutic. Xanthoma is not a premalignant lesion and follow-up is not necessary.^{10,12} Follow-up cystoscopy was performed in 5 patients with isolated xanthoma presented in 4 case reports.^{3,5,10,14} Nishimura et al. and Chitale et al. made the diagnosis with punch biopsies and no changes in the shape or size of the lesions were detected in control cystoscopies carried out 7 and 6 months later, respectively.^{5,14} In other cases, complete resection had been performed and no recurrences were detected on control cystoscopies. No recurrence or increase in lesion size was reported in bladder tumor associated cases either. Since it may be associated with lipid metabolism disorders, patients diagnosed with xanthoma should be evaluated

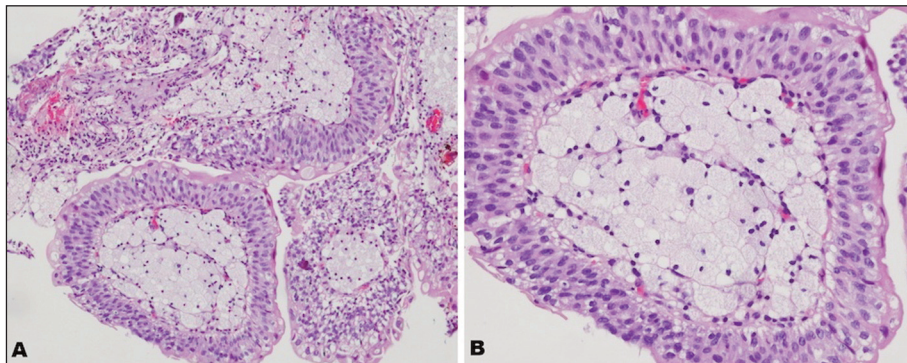


FIGURE 2: Histiocytes with foamy cytoplasm infiltrating lamina propria under a normal urothelium (A: H&E, x100, B: H&E, x200).

especially for hypercholesterolemia. Differential diagnosis includes xanthogranulomatous cystitis, malakoplakia, signet ring cell carcinoma and granular cell tumor.^{2,3,9}

In conclusion, xanthoma is a benign lesion which is very rarely found in the bladder. They are usually detected incidentally during cystoscopy. It is observed as a yellow-white papillary lesion. Transurethral resection is both diagnostic and therapeutic. All patients with xanthoma should be evaluated for underlying lipid metabolism disorders.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Abdullah İlkaç, Ganime Çoban; **Design:** Abdullah İlkaç, Ganime Çoban; **Control/Supervision:** Abdullah İlkaç, Ganime Çoban; **Data Collection and/or Processing:** Abdullah İlkaç, Emin Cenar Coşkun; **Analysis and/or Interpretation:** Abdullah İlkaç, Emin Cenar Coşkun; **Literature Review:** Abdullah İlkaç, Ganime Çoban, Emin Cenar Coşkun; **Writing the Article:** Abdullah İlkaç, Emin Cenar Coşkun; **Critical Review:** Abdullah İlkaç, Ganime Çoban; **References and Fundings:** Abdullah İlkaç, Ganime Çoban, Emin Cenar Coşkun; **Materials:** Abdullah İlkaç, Ganime Çoban, Emin Cenar Coşkun.

REFERENCES

- Goldblum JR, Folpe AL, Weiss S. Benign fibrohistiocytic tumors. In: Goldblum J, Weiss S, Folpe AL, eds. Enzinger and Weiss's Soft Tissue Tumors. 7th ed. Philadelphia: Elsevier; 2019. p.375-423.
- Yu DC, Patel P, Bonert M, Carlson K, Yilmaz A, Paner G, et al. Urinary bladder xanthoma: a multi-institutional series of 17 cases. *Histopathology*. 2015;67(2):255-61. [[Crossref](#)] [[PubMed](#)]
- Raghavendran M, Venugopal A, Kaushik VN. Urinary bladder xanthoma is immunohistochemistry necessary? *Urol Case Rep*. 2016;8:36-7. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
- Skopelitou A, Mitselou A, Gloustanou G. Xanthoma of the bladder associated with transitional cell carcinoma. *J Urol*. 2000;164(4):1303-4. [[Crossref](#)] [[PubMed](#)]
- Nishimura K, Nozawa M, Hara T, Oka T. Xanthoma of the bladder. *J Urol*. 1995;153(6):1912-3. [[Crossref](#)] [[PubMed](#)]
- Miliauskas JR. Bladder xanthoma. *Histopathology*. 1992;21(2):177-8. [[Crossref](#)] [[PubMed](#)]
- Piol N, Mantica G, Banchemo R, Toncini C. Urinary bladder xanthoma: two case reports and a review of the literature. *Arch Esp Urol*. 2018;71(10):862-6. [[PubMed](#)]
- Hassouna H, Broome JD, Swalem K, Manikandan R. Xanthoma of the urinary bladder: a rare benign condition which may be mistaken for malignancy. *BMJ Case Rep*. 2014;2014:bcr2014203836. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
- Vimal M, Masih D, Manipadam MT, Chacko KN. Xanthoma of the urinary bladder-a rare entity. *Indian J Urol*. 2012;28(4):461-2. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
- Al-Daraji WI, Varghese M, Husain EA, Abellaoui A, Kumar V. Urinary bladder xanthoma: a report of 2 rare cases highlighted with anti-CD68 antibody. *J Clin Pathol*. 2007;60(7):844-5. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
- Lindboe CF. Xanthoma of the urinary bladder. *Int Urol Nephrol*. 2005;37(3):483-4. [[Crossref](#)] [[PubMed](#)]
- Kobayashi F, Kume H, Tomita K, Kitamura T. Xanthoma of the urinary bladder. *Scand J Urol Nephrol*. 2005;39(6):527-8. [[Crossref](#)] [[PubMed](#)]
- Martí Mestre J, Delagneau Rivas J, Bosch Princep R, Sánchez Martín F, Mendoza Carcamo M, González Nú-éz F. Xantoma vesical. Hallazgo cistoscópico [Urinary bladder xanthoma. A cystoscopic finding]. *Actas Urol Esp*. 2004;28(8):617-9. [[Crossref](#)] [[PubMed](#)]
- Chitale SV, Peat D, Lonsdale R, Sethia KK. Xanthoma of urinary bladder. *Int Urol Nephrol*. 2002;34(4):507-9. [[Crossref](#)] [[PubMed](#)]