

Bladder Cancer Diagnosed at Routine Obstetric Evaluation**Rutin Gebelik Muayenesinde Saptanan Mesane Tümörü**Ayşe Yasemin KARAGEYİM KARŞIDAĞ¹, Esra Esim BÜYÜKBAYRAK¹, Bilal ERYILDIRIM²¹ Dr. Lütfi Kırdar Kartal Research and Education Hospital, Obstetric and Gynecology Clinic, İstanbul, Türkiye² Dr. Lütfi Kırdar Kartal Research and Education Hospital, Urology Clinic, İstanbul, Türkiye**ABSTRACT**

We present a pregnant woman with painless hematuria during routine obstetric evaluation and diagnosis of bladder carcinoma. The patient had no symptoms before the pregnancy. A urinalysis displayed hematuria. Ultrasound showed a mass arising from wall of the bladder. The patient underwent a cystoscopy and biopsy, which revealed carcinoma of the bladder. She underwent transurethral resection of the tumor. Histological diagnosis was low-grade papillary urothelial carcinoma without evidence of lamina propria invasion. Follow-up cystoscopies on postpartum period showed no evidence of recurrent tumor. Pregnancy is not a contraindication for treatment of bladder cancer.

Key Words: Bladder carcinoma, pregnancy

ÖZET

Rutin obstetrik değerlendirmede ağrısız hematürisi olan ve mesane karsinomu saptanan gebe hastanın sunumu. Gebelikten önce hiç bir semptomu olmayan hastada idrar tahlilinde hematüri saptandı. Ultrason tetkikinde mesane duvarından kaynaklanan kitle görüldü. Sistoskopik biyopsi ile mesane karsinomu tanısı konuldu. Hastaya Transüretal Tümör Rezeksiyonu yapıldı. Histolojik tanı low grade, lamina propria invazyonu olmayan papiller ürotelyal karsinomdu. Postpartum dönemde yapılan kontrol sistoskopilerde tümör rekürrensi saptanmadı. Gebelik mesane tümörü tedavisinde kontrendikasyon oluşturmaz.

Anahtar Kelimeler: Mesane kanseri, gebelik

Introduction

Most incident bladder cancers affecting women occur in those aged older than 55 years with a mean age at diagnosis of 71 years. However, there are rare reports of bladder cancers occurring in much younger population (1). Cigarette smoking is associated with an earlier age and higher stage at diagnosis (2). The most common presenting complaint of bladder cancer patients is gross painless hematuria. Obstetric patients with bladder cancer most commonly present in the second and third trimesters. Up to 15% of all patients with gross painless hematuria may have bladder cancer (3).

Herein we report a case of incidentally diagnosed bladder cancer in pregnant women during routine first-trimester obstetric examination.

Case

A 24-yr-old woman (gravidity 2, parity 1) who is a former smoker with no other significant medical history, applied to our clinic for obstetric ultrasonography at 16th weeks of gestation. On her medical history, there were no symptoms of dysuria, or pelvic pain before the pregnancy. The present pregnancy

was uneventful until now. The ultrasonographic examination demonstrated appropriate second-trimester fetal anatomy. A urinalysis performed as part of routine prenatal laboratory testing showed microscopic gross hematuria which patient was unaware of. Urinary ultrasound scan showed a 3, 5 cm. dense irregular mass arising from the left posterior wall of the bladder suggesting the possibility of a bladder tumor. The patient was consulted for urologic evaluation and underwent an uncomplicated cystoscopy and biopsy, which revealed a left-sided papillary tumor consistent with a transitional cell carcinoma of the bladder. She underwent transurethral resection (TUR) of the bladder tumor under general anesthesia without complication at 19th week of gestation. Histological diagnosis of the mass revealed a low-grade papillary urothelial carcinoma without evidence of lamina propria invasion. Since her tumor was superficial further treatment was not suggested during pregnancy. Follow-up urinary ultrasound scan 2 months after TUR operation showed no evidence of tumor. Further urologic evaluation and treatment was planned after delivery.

At 41st weeks of gestation, a healthy baby weighing 3930 gr. was delivered by vaginal delivery. There was no complications related to mother or baby during

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delivery and the postpartum period

Follow-up cystoscopies on 7th day and 3rd month during postpartum period showed no evidence of recurrent tumor. She is referred to routine follow-up for superficial bladder cancer.

Discussion

Bladder cancer during pregnancy is exceedingly rare because most cases of bladder cancer occur after the sixth decade of life. Herein we report a case of maternal bladder cancer, which was discovered incidentally during routine second-trimester obstetric examination. The remarkable feature of this case is the diagnosis of bladder carcinoma in a totally asymptomatic and a very young patient during pregnancy.

The major risk factor of bladder cancer is cigarette smoking. At least one-third of bladder cancers are associated with current cigarette smoking like in our patient (4).

The major symptom of bladder cancer is painless hematuria (5). Ultrasound may help in detecting bladder tumors (4,5). Its diagnostic accuracy is proportional to the tumor size with an overall detection rate of 50% (6). Cystoscopic biopsy is the gold standart method for the diagnosis.

In pregnancy, symptoms are often not helpful because hematuria is usually attributed to urinary tract infection, and bleeding is frequently thought to arise from the placenta or cervix (4). Cystoscopy is considered the most useful test in evaluating the patient with hematuria (7). The procedure can be performed in office conditions with a flexible endoscope under local anesthetic. No complications were reported related with cystoscopy during pregnancy (7). The entire visible tumor should be removed and underlying muscle should be biopsied for staging purposes (7).

Histologically transitional cell cancers account for 93% of bladder cancers in the North American general population. Seventy-five percent of these tumors represent papillary superficial disease like in our case (7). They are graded by cytological criteria as; differentiated (grade 1), moderately differentiated (grade 2), or poorly differentiated (grade 3). Ninety-eight percent to 99% of superficial papillary transitional cell carcinomas are grade 1 or 2 and rarely progress to bladder muscle invasion. An exception is the stage T1 lesion, which is considered superficial, yet has invaded the lamina propria (7). Thirty percent to 50% of these tumors may progress to invade the bladder wall muscle (7).

For the treatment, superficial (stage Ta, Tis, and T1) tumors are resected flush with the bladder mucosa (7). A deeper resection, sampling the lamina propria and muscularis propria, should be performed (7). The base of the tumor is electrocoagulated. This procedure is usually curative, although recurrences or new occurrences happen in 50% to 75% of patients (7). The available literature, although not definitive, suggests that superficial bladder tumors may be safely treated in this fashion during pregnancy too (4-7). Our patient is managed under the light of this literature. She is successfully treated with TUR at 19th week of gestation.

Long-term follow up with flexible cystoscopy and urine cytology is advised due to significant risk of recurrence (7). Our case is followed up with urinary ultrasound during her pregnancy. Postoperative cystoscopic control is postponed to the postpartum period.

In conclusion, bladder cancer is a rare condition complicating pregnancy. A

high index of suspicion and an appropriate clinical evaluation can lead to timely diagnosis and treatment, neither of which is contraindicated in pregnancy. Most lesions are superficial, well to moderately differentiated, and amenable to definitive local resection upon diagnosis. Although the management and outcome after diagnosis of invasive disease is less clear and therapy must be individualized, one should consider postponing definitive therapy until the fetus has been delivered at a gestational age compatible with neonatal survival and low morbidity.

References

- 1- Scosyrev E, Noyes K, Feng C, Messing E. Sex and racial differences in bladder cancer presentation and mortality in the US. *Cancer* 2009;115:68-74.
- 2- Freedman ND, Silverman DT, Hollenbeck AR, Schatzkin A, Abnet CC. Association between smoking and risk of bladder cancer among men and women. *JAMA* 2011;306:737-45.
- 3- Vogelzang NJ, Shipley WU, Scardino PT et al. (eds). *Comprehensive Textbook of Genitourinary Oncology*. Philadelphia: Lippincott Williams & Wilkins, 2000.
- 4- Yeaton-Massey A, Brookfield KF, Aziz N, Mrazek-Pugh B, Chueh J. Maternal bladder cancer diagnosed at routine first-trimester obstetric ultrasound examination. *Obstet Gynecol* 2013;122:464-7.
- 5- Shrotri KN, Ross GC. Bladder carcinoma presenting during twin pregnancy. *J Obstet Gynaecol* 2008;28:750-1.
- 6- Spahn M, Bader P, Westermann D, Echte D, Frohneberg D. Bladder carcinoma during pregnancy. *Urol Int* 2005;74:153-9.
- 7- Wax JR, Pinette MG, Blackstone J, Cartin A, McCrann DJ. Nonbilharzial bladder carcinoma complicating pregnancy: review of the literature. *Obstet Gynecol Surv* 2002;57:236-44.