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Case Report
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Bladder Carcinoma with Life Threatening Hematuria during Pregnancy: A Therapeutic Challenge Bladder Carcinoma & Pregnancy

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Abstract

Malignancies are rare in pregnant women; with overall incidence during pregnancy is around 2.35/10,000. The most prevalent tumors occurring in pregnant females are malignant melanoma (2.8/1000), followed by carcinoma of the cervix (1/2200) and breast (1/3000). A review of the literature didn't find any convincing evidence that pregnancy has a deleterious impact on the incidence of clinical profile of malignancy as compared to non-pregnant women of reproductive age, except in the case of malignant melanoma.

Urological malignancy in pregnancy is rare and poses a diagnostic and treatment challenge. Here, we report a case of non-muscle invasive bladder carcinoma in the pregnant female, successfully managed by TURBT (Transurethral Resection of Bladder Tumor), resulting in good maternal and fetal outcomes.

Keywords: TURBT; Non-muscle invasive bladder cancer; Pregnancy

Introduction

Urological malignancies are very uncommon in pregnancy, with an overall incidence of around 1/1000 pregnancies [1-3]. Though rare, they can impose particular problems in diagnosis and management during pregnancy as fetal wellbeing has to be kept in mind too.

Case Presentation

A 25-year-old pregnant woman in the 36th week of gestation was presented to the hospital owing to painless gross intermittent hematuria with clots for the last four months. She denied any history suggestive of urinary tract infections, renal calculus, or other genitourinary complaints. Herprenatal course had been otherwise uneventful, and she had no history of such urological complaints. She was a nonsmoker, nonalcoholic, and had no history of occupational or chemical exposure. On examination, the patient was pallor, normotensive, afebrile, and had stable vitals and voiding of wine-colored urine with blood clots. The fetus was active and the fetal heart sounds were strong. There was no evidence of vaginal bleeding. Her complete blood count was within normal limits except for normocytic normochromic anemia (Hemoglobin 9.2 gm/dl). Blood urea nitrogen, serum creatinine, viral markers, and coagulation survey were non-contributory. Her urine analysis showed numerous red blood cells with no casts or crystals and her urine culture was negative. Ultrasound examination revealed mild pregnancy-related hydronephrosis without any calculus and single space-occupying, papillary lesion of size approximately 2 cm × 2 cm with high vascularity was noted at the right anterior wall of the bladder, suggestive of bladder tumor. The kidneys were normal in appearance. A single live fetus without any uterine abnormalities was noted.

She was being followed conservatively but in meantime, she started to have severe gross hematuria with clots retention leading to a fall in hemoglobin (6.2 gm/dl). She was managed by cystoscopy and clots evacuation followed by two units of blood transfusion. On cystoscopy, a growth of 2 cm × 2 cm in size was noted at the anterior bladder wall that was bleeding profusely.

A decision was taken to fulgurate and bipolar Transurethral Resection of Bladder Tumor (TURBT) in the same sitting under spinal anesthesia. The procedure was uneventful. On 2nd postoperative day, severe fetal distress was noted, the cause of which was unknown. A decision of Lower Section Cesarean Section (LSCS) was taken by a treating obstetrician and was performed.

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The postoperative periods were uneventful, with mother and baby both being healthy and recovering. The patient and the baby were discharged on postoperative day 8.

The TURBT tissue specimen sent for histopathological evaluation revealed transitional cell carcinoma of the urinary bladder of TaG 1 grade. Follow-up cystoscopy on 3rd-month follow-up was unremarkable.

Discussion

In men, bladder carcinoma is one of the most common malignancies, but its occurrence in women is quiet less, with a male to female ratio of 3-4:1 [4]. It usually presents in the 6th and 7th decades of life. In young pregnant women, chances of the bladder carcinoma are very low. Pregnancy and malignancy are among the biological conditions in which antigen tissue is tolerated by a competent immune system [4].

The majority of these cases usually present in the second or third trimester with painless hematuria. Hematuria presenting during pregnancy always warrants prompt evaluation, keeping bladder cancer as a differential diagnosis in mind. Diagnosis of bladder carcinoma during pregnancy can pose a dilemma, as symptoms are often misleading, i.e. frequency and nocturia are usually mistaken as they can arise throughout pregnancy in healthy females too, thus delaying the diagnosis [3]. It is further complicated as for the patient, identification of the source of bleeding is often difficult and is frequently mistaken for obstetric hemorrhage or more common benign lesions such as cystitis. Although cystitis is the commonest cause of hematuria during pregnancy [5], complete work-up is needed if a response to treatment is not satisfactory but firstly, painless vaginal bleeding due to placenta previa must be excluded since this needs prompt obstetrical intervention. Although bladder carcinoma is quite rare in pregnant women, gross hematuria should be managed with a high index of suspicion to rule out the possibility and timely management of bladder malignancy. Flexible cystoscopy is considered safe and the most useful test in the evaluation of hematuria in pregnancy. Transurethral Resection of the Bladder Tumor (TURBT) under regional or general anesthesia is considered safe to perform irrespective of the gestational period [6]. If the malignant potential of the tumor is high, then termination of pregnancy is considered during the early gestational period for maternal survival, followed by management of malignancy. There are only 27 cases reported of bladder mass with pregnancy out of which eight cases were managed with TURBT during the intrapartum period followed by an uneventful continuation of pregnancy till term or near term, thus ensuing fetal well-being simultaneously [6-9].

In this case, as the patient was having profuse bleeding from bladder growth, so we decided to go for fulguration and TURBT. Unfortunately, the fetal distress of unknown cause resulted in emergency LSCS. The current case highlights the successful procedural outcome of TURBT for the mother but the risk remains for the fetus although TURBT is considered safe generally. In our case, though we couldn't ascertain the exact cause of fetal distress, still the procedure can be considered as one of the culprits. The authors want to shed light on the TURBT in pregnancy as a not-so-safe procedure but it remains a choice to perform in a patient with persistent hematuria where conservative treatment fails to continue pregnancy till term. Close and proper monitoring of both the maternal and fetal conditions remains crucial during the postoperative follow-up period.

Author's Contribution

Corresponding and first author: Substantial contributions to the conception or design of the work and the acquisition; Drafting the work or revising it critically for important intellectual content.

Co-authors: Analysis, or interpretation of data for the work; Agreement related to the accuracy or integrity of any part of the work are appropriately investigated and resolved; Agreement to be accountable for all aspects of the work.

References

1. Kennedy S, Yudkin P, Greenall M. Cancer in pregnancy. Eur J Surg Oncol. 1993;19:405-7.
2. Spahn M, Bader P, Westermann D, Echtle D, Frohneberg D. Bladder carcinoma during pregnancy. Urol Int. 2005;74(2):153-9.
3. Mitra S, Williamson JG, Bullock KN, Arends M. Bladder cancer in pregnancy. J Obstet Gynaecol. 2003;23(4):440-2.
4. Gleicher N, Deppe G, Cohen CJ. Common aspects of immunologic tolerance in pregnancy and malignancy. Obstet Gynecol. 1979;54(3):335-42.
5. Choate JW, Theide HA, Miller HC. Carcinoma of bladder in pregnancy. Am J Obstet Gynecol. 1964;90(4):526-30.
6. Shrotri KN, Ross GC. Bladder carcinoma presenting during twin pregnancy. J Obstet Gynecol. 2008;28(7):750-1.
7. Kimura F, Sakamoto H, Shimizu S, Nakajima F, Nakamira H. [Transitional cell carcinoma of bladder occurring during pregnancy: Report of two patients]. Nihon Hinyokika Gakkai Zasshi. 1994;85(11):1683-6.
8. Bendsen J, Moller Emst K, Povey G. Bladder tumor as apparent cause of vaginal bleeding in pregnancy. Acta Obstet Gynecol Scand. 1985;64(4):329-30.
9. Gupta NP, Dorairajan LN. Transurethral resection of a bladder tumor in pregnancy: A report of 2 cases. Int Urogynecol J Pelvic Floor Dysfunct. 1997;8(4):230-32.