Pediatrics

Bladder Hamartoma in a Fetus: Case Report

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We present the case of the youngest reported patient with a bladder hamartoma detected prenatally by ultrasonography. Bladder tumors in newborns are rare, but a hamartoma should not be discarded among the diagnostic possibilities when evaluating a fetus or a newborn with a polypoid bladder lesion.

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Introduction

Bladder hamartomas in children are rare. We present the case of a fetus with a polypoid bladder lesion corresponding to a hamartoma.

Case presentation

A 32-year old woman was seen by the corresponding author when she was 26 weeks pregnant with diamniotic dichorionic twins. The 34-week obstetrical ultrasonography showed, in the male twin, an echogenic tubular mass, which appeared to rise from the bladder base. The mass measured 1.3 × 0.3 cm, had a double echogenic line along its periphery, and no internal color Doppler flow (Fig. 1). The sonographer’s preliminary diagnosis was a possible ureterocele, but both kidneys had a normal appearance with no evidence of duplication. In a prenatal urologic consultation, the family was told that the baby had a polypoid bladder lesion; the differential diagnoses including the possibility of a hamartoma were discussed. All subsequent follow-up obstetrical ultrasounds showed similar findings.

A postnatal renal ultrasonography performed when the baby was 37-day-old showed a bilateral grade-I hydronephrosis, and a 9 × 3 mm heterogeneous, hypoechoic, tubular structure was found at the bladder base, contiguous with the anterior and posterior bladder wall. A voiding cystourethrogram study showed a filling defect in the base of the bladder to the left of the midline, which correlates with the ultrasonography findings.

The child was taken to the operating room when he was 2 months old, a cystourethroscopy showed a polypoid structure rising from the anterior bladder wall and 1 cm from the bladder neck at the 12-o’clock position. The lesion was removed cautering its short stalk with a 3F. Bugbee electrode (Karl Storz, Germany). The bladder was kept full, and the polyp was passed spontaneously during a Credé maneuver. The specimen measured 0.6-0.8 cm in length. Follow-up ultrasonography performed at 6, 12, and 18 months postoperatively showed no evidences of recurrence.

Pathology

Microscopic examination showed a histologically benign polyp consistent with a benign mesenchymal hamartoma of the bladder; it has a nodular aggregate of mixed connective tissue including fat, blood vessels, smooth muscle, and myxoid fibrous tissue. Angiomyolipoma was considered in the differential diagnosis. Human Melanoma Marker-45 immunostaining was performed and demonstrated negative expression, not supportive of angiomyolipoma. S-100 immunostain was positive in the mature adipocytes. No epithelial element was seen on cytokeratin staining. On immunohistochemistry evaluation, the smooth muscle components stained positive for smooth muscle actin (Fig. 2).

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Discussion

Bladder hamartomas are very rare in children; our patient is the youngest reported patient with a bladder hamartoma detected prenatally in an otherwise normal patient. Postnatally, the finding of a polypoid lesion of the bladder base was confirmed; the different diagnostic possibilities were reviewed with the family including the possibility of a hamartoma. In general, bladder tumors in newborns are very rare. Firlit et al\(^1\) reported a 4-week-old patient with Beckwith-Wiedemann syndrome who had a benign bladder polyp in the bladder neck. Barbet et al\(^2\) reported a botryoid sarcoma of the bladder in 2 premature infants. We recommend that a hamartoma must be considered as one of the diagnostic possibilities when evaluating a fetus or a newborn with a polypoid bladder lesion.

Conclusion

A bladder hamartoma should be considered as a diagnostic possibility when evaluating a fetus with a polypoid bladder lesion.

Conflicts of interest

The authors report no conflicts of interest.

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