Case Report

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Imperforate Hymen with Hydrocolpos in Palestinian Neonate: A Case Report

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Abstract

Neonatal hydrocolpos is a rare condition, if not diagnosed early could lead to lower urinary tract obstruction and renal failure. At 39th week gestational age antenatal ultrasound showed the fetus had lower abdominal mass 4 × 6 cm. By physical examination at birth, she was girl with lower abdominal distension and she had a bulging imperforated hymen. Abdominal CT documented hydrocolpos. The pediatric surgeon did a small hymeneal incision, milky secretion drained and abdominal distension significantly improved.

Keywords: Neonatal hydrocolpos; Lower urinary tract; Renal failure

Introduction

Imperforated hymen incidence is 0.014-0.01% [1]. The presentation mostly late with amenorrhea at the adolescence age. Specific causes for the failure to set up patency are not clear. The cause may be related to failure of apoptosis due to a genetically transmitted signal, or it may be related to an inappropriate hormonal milieu [2]. Familial inheritance in successive generations has been described [3]. Hydrocolpos is an accumulation of reproduction gland secretion and cystic dilation of the vagina due to imperforate hymen or congenital anomalies of the vagina like; vaginal atresia or membranous obstruction in the lower part of the vagina [4-7]. If the condition not diagnosed early, could be renal failure develops due to lower renal obstruction. Our case is female, she was antenatally diagnosed to have pelvic-abdominal mass, at birth by examination; she had abdominal distention and imperforate hymen.

Case Report

Second-degree consanguineous parents, they had no family history of congenital anomalies. Mother had good antenatal care, at 39 weeks gestation age, antenatal ultrasound showed the fetus had pelvic-abdominal mass 4 × 6 cm **(Figure 1)**.

Figure 1 Fetal abdominal mass at the 39 weeks gestational age.

She was born at 40 weeks gestational age, by normal vaginal delivery, Apgar score were 7, 9 at 1, 5 minute respectively. Birth weight was 3300 grams and head circumference was 36 cm. She had abdominal distension in the lower part, by palpation, there was a tender mass with a diameter of about 6 cm **(Figure 2)**. The other parts of the physical examination was normal. She had a normal patent anus and she passed stool. she had a patent normal urethral opening and passed urine 3 ml/kg/day. She had imperforated bulging hymen **(Figures 3-5)**. Abdominal ultrasound showed cystic abdominal mass measure about 5 × 8 cm, there were left-sided hydronephrosis and hydro-ureter.

Abdominal CT showed cystic mass extended from the pelvis the level of the hymen, the mass was not connected to the internal organ or spine. The mass made pressure on urine bladder which was pushed anteriorly. Clinical presentation and abdominal CT was diagnostic of imperforate hymen with hydrocolpos. The pediatric surgeon did a hymeneal incision and a large amount of milky secretion was drained. The abdomen distension significantly subsided. The baby was

discharged home to be operated next week under general anesthesia for appropriate vaginoplasty.

Figure 2 Lower abdominal distension.

Investigation

Serum urea-20 mg/dl; Creatinine-0.3 mmol/l; Sodium-135 mmol/l; Potassium-4 mmol/l; Calcium-1.14 mmol/l.

Figure 3 Imperforated bulging hymen.

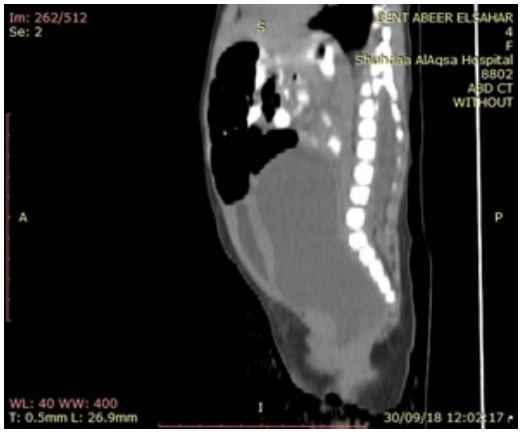

Figure 4 Sagittal view CT-hydrocolpos made pressure on the urine bladder.

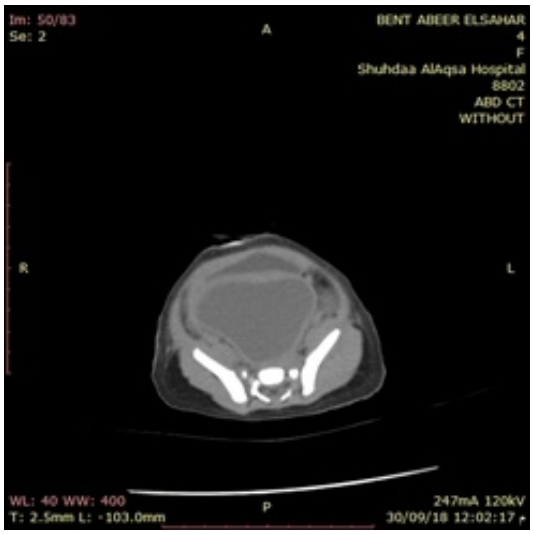

Figure 5 Axial view CT-hydrocolpos.

Discussion

By antenatal ultrasound, the fetus had lower abdominal mass at the age of 39 weeks gestation. By physical examination after birth, she had visible abdominal distension, abdominal ultrasound showed pelvic cystic mass not connected to the internal organ but had pressure on the left side causing hydro-ureter and hydronephrosis, abdominal CT showed cystic mass extended from pelvis to lower part of vagina till hymen. The CT showed also cystic mass made pressure on the urine bladder which was pushed anteriorly. Physical examination also showed bulging imperforated hymen. The clinical examination and the radiologic findings were diagnostic of neonatal imperforated hymen and hydrocolpos. The diagnosis at time and an appropriate management of pediatric surgeon by hymeneal incision saved the baby from a fatal complication [8,9].

Conclusions

- The genital area of the female new born should be examined well after birth.
- Early diagnosis and an appropriate management will protect the patient from a fatal complication.

Acknowledgment

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Conflict of Interest

The authors declare no conflict of interests.

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