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CASE REPORT

Neonatal Hydrometrocolpos due to Segmental Vaginal Atresia: A Case Report

[1]Vidyanand Deshpande, [2]Mohit Aggarwal

ABSTRACT

Neonatal hydrometrocolpos due to congenital vaginal obstruction is a very rare condition. We describe our experience with a case of huge hydrometrocolpos due to transverse vaginal septum presenting as abdominal distension and urinary obstruction.

Keywords: Hydrometrocolpos, Imperforate hymen, Vaginal atresia.

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INTRODUCTION

Hydrometrocolpos is a collection of uterine and vaginal secretions in the uterus and vagina. Membranous vaginal atresia or imperforate hymen leading to hydrometrocolpos usually present at puberty. The incidence of congenital hydrometrocolpos described is 0.006%. We describe our experience with a case of huge hydrometrocolpos due to the transverse vaginal septum in a neonate.

CASE REPORT

A 24-day-old female neonate presented with distension of abdomen and dribbling of urine for 3 days. She was the product of a full term normal vaginal delivery with birth weight of 3.1 kg. Physical examination revealed distended and tense abdomen. Perineal examination revealed a normal urethral and anal orifice. However, there was no vaginal orifice, and it was replaced by a membrane. A bulge was seen at the membrane as and when the child cried. Ultrasonography was done in an emergency, and it revealed a huge hydrometrocolpos with bilateral hydronephrosis. The child was catheterized and about 25 mL of urine was drained. Hydrometrocolpos was subsequently drained under ultrasound guidance through the membrane with the help of a sterile needle. About 210 mL of thick turbid fluid was aspirated. The abdominal distension disappeared following this procedure. We then evaluated and ruled out the presence of any other associated congenital anomalies. The patient was later electively taken up for vaginoplasty. In lithotomy position, a vertical incision was taken on the membranous segment. The membrane was 5 mm thick. Mucosa on either side of the membrane was approximated with polyglactin 6–0 intermittent sutures (Fig. 1).

The child had an uneventful recovery and is now being followed-up in the outpatient department, where we regularly check for the patency of vaginoplasty. Repeat ultrasonography after 3 and 9 months of surgery was suggestive of normal internal genitalia and no evidence if any hydronephrosis. The patient is asymptomatic after 15 months of follow-up.

DISCUSSION

Distal vaginal atresia occurs when the caudal portion of the vagina, contributed by the urogenital sinus, fails to form.[1] It usually presents in young girls with cyclical abdominal pain and hematometrocolpos. Developmental obstruction of the vagina associated with accumulation of cervical and endometrial gland secretions leading to hydrometrocolpos is an unusual finding in newborns.[2] A new classification focused only on vaginal malformations,

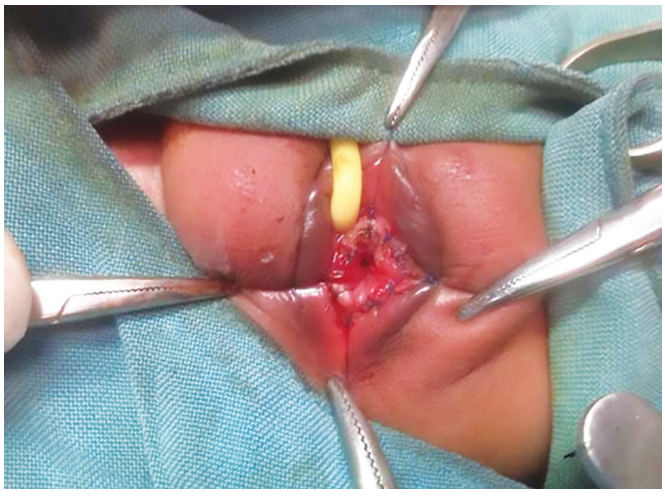

Fig. 1: Completion of vafioplasty

[1]Assistant Professor, [2]Resident

[1,2]Department of Pediatric Surgery, MGM Medical College, Aurangabad, Maharashtra, India

Corresponding Author: Vidyanand Deshpande, Assistant Professor, Department of Pediatric Surgery, MGM Medical College, Aurangabad, Maharashtra, India, Phone: +917744010813, e-mail: dr_vidyanand@rediffmail.com

based on embryological, anatomical, clinical and surgical criteria has been recently proposed by Ruggeri et al.[1] According to this classification, our case fits into type IV (a) category. Vaginal outflow obstruction and subsequent hydrometrocolpos in a neonate may be secondary to a transverse vaginal septum, atresia of the vagina, imperforate hymen, cloaca or a persistent urogenital sinus. Associated anomalies are commonly seen with vaginal atresia, urogenital sinus or cloacal malformations.[3] It may also be associated with the McKusick–Kaufman syndrome, an autosomal recessive disorder characterized by vaginal atresia with hydrometrocolpos, polydactyly, congenital heart defects, and imperforate anus. [4] Presentation usually depends on the amount of collection and extent of compression on surrounding structures. It may present with urinary and intestinal obstruction.[5] Our patient had urinary dribbling and bilateral hydronephrosis at presentation. All these symptoms and hydronephrosis resolved completely following vaginoplasty.

CONCLUSION

Careful genital examination to look for vaginal orifice must be done in all neonates presenting with abdominal distension, intestinal obstruction, bilateral hydronephrosis and a lump in the lower abdomen. Definitive surgical treatment in cases of low vaginal atresia is a simple vaginoplasty and establishing communication between vaginal epithelium and vulva.

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