

Report a Case of Umbilical Cord Hernia in a Neonate

Roya Farhadi

Assistant Professor of Neonatology,
Pediatrics Department, Mazandaran
University of Medical Sciences, Sari, Iran

Abstract

In this article a case of umbilical cord hernia is presented in a newborn infant who was managed by primary repair of the lesion.

Corresponding author: Roya Farhadi

✉ dr.royafarhadi@gmail.com

Assistant Professor of Neonatology,
Pediatrics Department, Mazandaran
University of Medical Sciences, Sari 48158-
38477, Iran

Tel: +981133343011-15

Fax: +981133344506

Introduction

Anomalies of umbilical region are a rare manifestation in the pediatric patient [1]. An umbilical cord hernia is a rare lesion in midline of abdomen that can be easily identified in prenatal ultrasonography but it may be easily misdiagnosed at birth and result in an intestinal injury after careless proximal clamping of the cord [2,3]. Unlike omphalocele, which is a serious defect in the umbilical area and associated with other congenital anomalies in 50% of cases, diameter of defect in umbilical cord hernia is less than 4 cm and is an apparently isolated lesion[4]. This report describes this case in a male newborn infant.

Case Report

Patient is a term male neonate who was born by cesarean section with a good Apgar score, weighing 3200 gram and product of non-consanguineous marriage. After birth the newborn had good condition and didn't need to resuscitation. Routine care was done to the patient and umbilical cord clamped as routine. All findings in prenatal ultrasonography were normal. At the first physical examination 5 hours after birth, a small 1.5 × 1.5 cm central defect was found at the site of the umbilical ring and bowel evisceration was observed through the umbilical cord which was covered by Wharton's jelly (**Figure 1**). In fear of intestinal injury and ischemia the clamp was immediately removed and the lesion was covered with sterile warm saline- soaked gauze. Sepsis work up was done and IV fluids and antibiotics were initiated. Pediatric surgery consult was requested and baby transferred to operating room. Under general anesthesia an incision was made and the intestinal loops carefully explored and inspected. Fortunately, there was no sign of intestinal damage, so bowels were returned to the abdominal cavity and only primary reconstruction of the umbilicus was performed. 3 days after surgery breast milk gradually was started and tolerated by patient and no post-operative complication happened and infant was discharged to home after 10 days.

Discussion

Umbilical cord hernia is a less frequent disorder in neonates.

Herniation into the umbilical cord may range from a small to the entire portion of bowel [5-7]. Mirza et al. reported three unusual cases of umbilical cord hernia with different presentation and recommended that it may be associated with intestinal atresia or colonic stenosis [5,8].

The most important point in this disease is early diagnosis of lesion and prevention of intestinal injury due to application of cord clamp. Although this lesion in our case wasn't diagnosed at



Figure 1 Herniation of umbilical cord in patient.

delivery room and clamp was fixed relatively in proximal part of the cord, the same distance seems prevented intestinal damage. However umbilical cord hernia can be overlooked at the birth time and an iatrogenic clamping of small umbilical cord defect result in ischemia and injury of intestines [3,4,9]. Gasparella et al. reported a case of an intestinal laceration due to clamping of an unrecognized herniation of umbilical cord in a newborn. The presented case was female [4].

Kierkegaard et al. reported a case of intestinal ileus secondary to umbilical cord hernia that misdiagnosed and clamped. They recommended the clamping of the umbilical cord at least in five centimeters from the abdominal wall. In cases that the cord is broad-based it is also advised to clamp at a safe distance from the umbilical ring [9].

El-Messidi et al reported a case of umbilical cord hernia that in early ultrasonography was reported as an umbilical cord teratoma. It was later established that this misdiagnosis was due to the fat content of the sac [10].

Conclusion

Although abdominal wall defects such as omphalocele are well recognized entities for pediatric surgeons, umbilical cord hernia, because of the small size of the defect can be missed in early clinical exam of neonates and in some cases, can lead to serious complications. Therefore careful examination of neonatal umbilicus and clamping the umbilical cord with the accuracy was recommended.

References

- 1 Carlisle EM, Mezhir JJ, Glynn L, Liu DC, Statter MB (2007) The umbilical mass: a rare neonatal anomaly. *Pediatr surg int* 23: 821-824.
- 2 Haas J, Achiron R, Barzilay E, Yinon Y, Bilik R, et al. (2011) Umbilical cord hernias: prenatal diagnosis and natural history. *J Ultrasound Med* 30:1629-1632.
- 3 Cizmeci MN, Kanburoglu MK, Akelma AZ, Tatli MM (2013) Do not overlook an umbilical cord hernia before clamping. *Eur J Pediatr* 172:1139.
- 4 Gasparella M, Zanatta C, Ferro M, Marzaro M, Benetton C et al. (2014) Iatrogenic Intestinal Laceration Secondary to Clamping of Unrecognized Umbilical Cord Hernia: A Case Report. *J Women's Health Care* 3: 177.
- 5 Mirza B, Mirza A , Hashim I, Saleem M (2015) Hernia of Umbilical Cord: Report of Three Unusual Cases. *J Neonatal Surg* 4: 16.
- 6 Gajdhar M, Kundal VK, Mathur P, Gajdhar M (2013) Pitfalls in the umbilical pit: giant hernia of the umbilical cord. *BMJ Case Rep*.
- 7 Pal K, Ashri H, Al Wabari A (2009) Congenital hernia of the cord. *Indian J Pediatr* 76: 319-21.
- 8 Mirza B, Saleem M (2014) Hernia of Umbilical Cord with Congenital Short Gut. *J Neonatal Surg* 3: 26.
- 9 Kierkegaard A, Bjerring OS, Rasmussen L (2011) The umbilical cord of newborn babies should be clamped at least five centimetres from the abdominal wall. *Ugeskr Laeger* 173: 2270-2271.
- 10 El-Messidi A, Fung Kee Fung K (2009) Umbilical cord hernia mimicking a cord teratoma. *J Obstet Gynaecol Can* 31: 533-537.

This article is part of the Special Issue entitled - **Clinical and Health Care**, edited by **Dr. Nguyen Van Bang**, (Hanoi Medical University, Vietnam) and belongs to Volume S1 of **Annals of Clinical and Laboratory Research**