



## Isolated Umbilical Cord Cyst: A Case Report

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### Abstract

*Umbilical cord cysts are usually classified as true cysts and pseudocysts. There is a strong association between umbilical cord cysts and congenital and chromosomal anomalies but not in all cases. We report a case of male newborn with large umbilical cord cyst as an isolated finding.*

**Key words:** *Umbilical cord cyst; Aneuploidy; Congenital anomaly.*

### Introduction

Umbilical cord cyst refers to any cystic lesion associated with the umbilical cord. Umbilical cord cysts are usually classified as true cysts or pseudocysts and may occur in any location along the cord but usually located towards its fetal insertion. They are irregular in shape and are located between the cord vessels.<sup>1</sup> True cysts have an epithelial lining and are derived from the embryological remnants of either the allantois or the omphalo-mesenteric duct.<sup>2</sup> They can grow up to several centimetres but more often range between 4 and 60 mm in size.<sup>3</sup> We report a case of male newborn with large umbilical cord cyst.

### Case Report

A 22 years old female, G3/P2, with no significant family and obstetric history, delivered a term 38-

week male child with an APGAR score of 9 at 1 and 10 at 5 minutes of life. His birth weight was 2556 g. He had no gross congenital anomalies on physical examination. There was no history of consanguinity. Antenatal ultrasound at 30<sup>th</sup> week of gestation was normal. Her biochemical screening was not done. There was no history of bleeding per vagina during pregnancy. On clinical examination, he had a large umbilical cord cyst at fetal end of dimension 10 cm × 8 cm (figure 1).

The total length of the umbilical cord was normal and so was the placenta and the fetal membranes. Abdominal ultrasound was made to exclude a patent urachus. Further pathologies of the urinary tract such as posterior urethral valves or vesico-ureteral reflux were also excluded. His echocardiography was normal. The newborn did well and his umbilical cord detached on day 12 of

life leaving a denuded surface with minor bleeding. The stump was sent for histological examination, which confirmed the presence of allantoic duct cyst histology and of the epithelial lining of the cyst. There were no further recurrences.



**Figure 1.** Large umbilical cord cyst

### Discussion

The prevalence of umbilical cord cysts ranged between 0.4% and 3.4%.<sup>4</sup> Umbilical cord cyst is believed to be related to an increase in the hydrostatic pressure inside the umbilical cord vessels and extravasation of fluid content into the involved region however exact etiology is not clear.<sup>5</sup>

There is a reported association between true cysts and omphalocele, patent urachus, hydronephrosis and Meckel diverticulum. Allantoic cysts are also reported to be associated with aneuploidies. Pseudocysts are more common than the true cysts, have no epithelial lining and represent localized edema of Wharton's jelly caused by degeneration or liquefaction.<sup>6</sup> Pseudocysts are also associated with chromosomal anomalies, omphalocele and hemangiomas.<sup>6</sup>

One fifth of the umbilical cord cysts of any type are associated with chromosomal anomalies, especially with trisomy 18 and 13.<sup>7</sup> A detailed investigations including amniocentesis, fetal

karyotyping are needed for persistent second trimester umbilical cord cyst. Surgical correction is often required for structural abnormalities associated with umbilical cord cyst.

Our case had a giant true umbilical cord cyst as an isolated finding with no other congenital anomalies. However, this case confirms that whenever no other congenital anomaly is found, the prognosis of umbilical cord cyst is excellent.<sup>8</sup>

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