

## Letter to the Editor

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### Transumbilical hernial laparotomy for a cystic abdominal mass

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Fig. 1

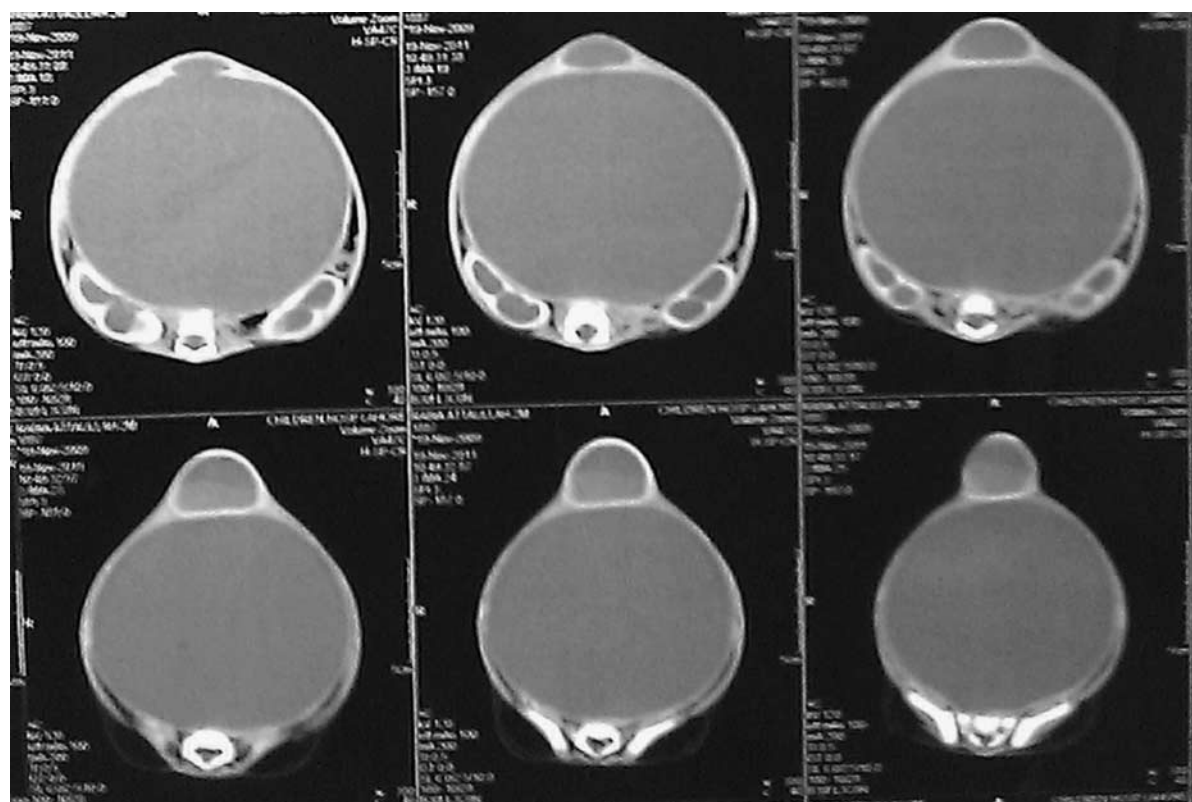


Massive abdominal distension and big umbilical hernia.

In infants and children, usual approach for open abdominal surgery is by a transverse right-sided supraumbilical incision. In day-to-day surgical practice, many conditions and factors may lead one to deviate from the norms to add some more benefit to the patient. We encountered a baby with a huge abdominal cystic mass and a big umbilical hernia. We utilized transumbilical hernial route to approach the mass.

A 25-day-old female infant presented with progressive abdominal distension and a big umbilical hernia. On examination, she had normal anal opening and a urogenital sinus (a single opening instead of separate vaginal and urethral openings). Umbilical hernial defect was greater than 4 cm in size. A huge cystic mass was occupying the entire abdominal domain. Umbilical hernia was reducible but tense and contents returned once reducing power was withdrawn (Fig. 1). Ultrasound and computed tomographic scan of the abdomen revealed a hypodense mass occupying entire abdominal domain including umbilical hernia (Fig. 2). Our diagnosis was

Fig. 2



Computed tomographic scan of the patient.

Fig. 3



Hydrocolpos main content of umbilical hernia.

Fig. 4

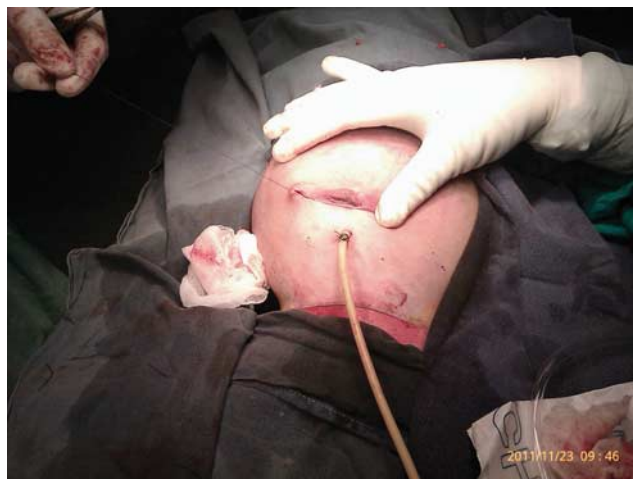


Tube vaginostomy.

hydrometrocolpos with differentials as ovarian cyst and mesenteric cyst. Patient was catheterized. An infraumbilical semilunar incision was made and peritoneal cavity was entered through big umbilical hernia. Findings revealed hydrocolpos as cystic mass and main content of umbilical hernia (Fig. 3). Uterus, both ovaries, and fallopian tubes were normal, although hypertrophied. Tube vaginostomy was performed through a separate stab wound (Fig. 4). Umbilical hernia was repaired in a manner of closing transverse abdominal wound. Skin wound was closed with subcuticular stitch (Fig. 5). Postoperative course was uneventful. Patient was discharged with a plan to repair urogenital sinus later on.

Umbilicus is continually being used as a site to approach intra-abdominal contents. Umbilicus is the main site to enter the camera port in laparoscopic and robotic surgery.

Fig. 5



Final wound appearance.

Some surgical entities such as patent urachus or patent vitello intestinal tract are easily approached transumbilically. Curved periumbilical incisions have been utilized for many surgical problems such as pyloromyotomy in case of pyloric stenosis. Umbilicus is also a site for enteric or urinary stoma [1–3]. However, surgery through umbilical hernia is not reported so far. Nevertheless, the optimal time of repair of umbilical hernia is around 3 years of life because before this time majority of umbilical hernias especially with defects less than 1 cm get closed. Bigger defects (> 1.5 cm) have fewer chances to close spontaneously [1]. In our case, the umbilical defect was 4 cm in diameter and a part of cystic mass was herniating through it. As the umbilical defect was quite bigger, no difficulty was encountered in identifying anatomy and performing drainage of the hydrocolpos. We utilized abdominal wall weakness area to perform a surgical procedure followed by repair of that defect. Our approach provided initial management of hydrometrocolpos along with hernial defect closure with the same incision. Moreover, in our experience, bigger hernial defects rarely close spontaneously. Big umbilical hernia, when present, may provide a window to approach abdomen for surgical tasks as we did in the index case.

## Acknowledgements

### Conflicts of interest

There are no conflicts of interest.

## References

- 1 Cilley RE. Disorders of the umbilicus. In: O'Neill JA Jr, Rowe MI, Grosfeld JL, et al., editors. *Pediatric surgery*. 6th ed. Chicago: Year Book; 2006. pp. 1143–1157.
- 2 Lazar D, Naik B, Fitch ME, Nuchtern JG, Brandt ML. Transumbilical pyloromyotomy with umbilicoplasty provides ease of access and excellent cosmetic results. *J Pediatr Surg* 2008; **43**:1408–1410.
- 3 Lemoine C, Paris C, Morris M, Vali K, Beaunoyer M, Aspirot A. Open transumbilical pyloromyotomy: is it more painful than the laparoscopic approach? *J Pediatr Surg* 2011; **46**:870–873.