Patent Vitellointeststinal duct with prolapsed and gangrenous small bowel.

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ABSTRACT

A wide variety of anomalies may occur as a result of the vitellointestinal duct (VID) failing to obliterate completely. Most reports on symptomatic VID focus on Meckel's diverticulum, while other anomalies are given little attention. We report a case of a baby of 2 months who presented with prolapsed intestinal loop through umbilicus with gangrenous changes. The gangrenous part of intestine was resected and end to end anastomosis was done.

Key words: vitellointestinal duct (VID), Patent VID, Umbilicus, Gangrenous Bowel

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INTRODUCTION

Patent Vitello-intestinal Duct results from failed obliteration of the fetal omphalocele celom (herniated loops of intestine in the umbilical cord) during the development of the midgut [1, 2]. During the 3rd week of intrauterine life, there is a communication between the intraembryonic gut and the yolk sac. As the development proceeds, this communication narrows into a tube known as the vitello-intestinal duct (VID). With the establishment of placental nutrition, this duct usually becomes obliterated by the end of the 7th week of intrauterine life. In about 2% of humans, this duct persists and gives rise to a group of anomalies of which Meckel's diverticulum is the commonest and complete patency of the duct is the rarest [1,2].

Remnants of the VID are said to be present in 2 to 4% of all routine postmortem examinations [2], but usually, they remain aymtomatic [3]. However, it may make its presence known dramatically in the first few years of life, or, more rarely, in adult life [2-4]. The complications to which they are subject are serious and are commonest in infants and young children of the male sex [2].

We treated a patient of patent VID with prolapsed bowel and gangrenous changes. Being an uncommon entity, it is being presented with review of the relevant literature.

CASE REPORT

A 2-month-old girl child came with multiple gangrenous intestinal loop emerging from anterior abdominal wall with absent umbilicus. The parents told that she had a mass protruding from umbilicus after shedding off the umbilical cord. But for last two days, baby developed multiple bowel loops protruding from opening.

On examination, the bowel loops looked edematous with gangrenous changes (figure 1). The stem of the loop was protruding from umbilicus and fix to anterior abdominal wall. The loops was irreducible.

MATERIALS AND METHOD:

A 2-month-old girl child came with multiple gangrenous intestinal loop emerging from anterior abdominal wall with absent umbilicus. The parents told that she had a mass protruding from umbilicus after shedding off the umbilical cord. But for last two days, baby developed multiple bowel loops protruding from opening.

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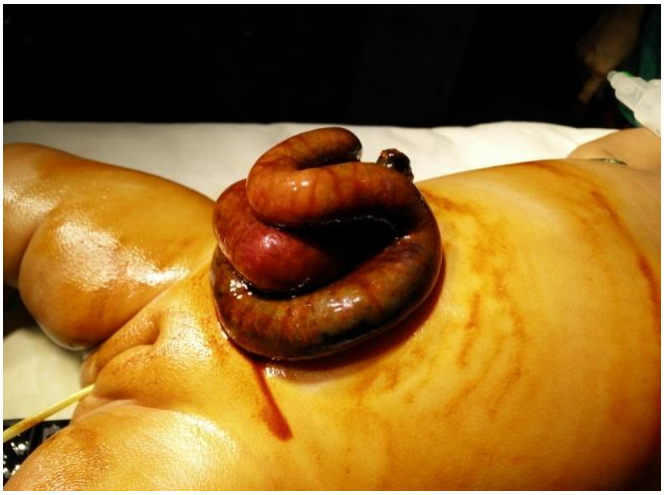
OBSERVATION AND RESULTS:

After resuscitation, emergency laparotomy was performed under general anesthesia. About 30 cm. segment of distal ileum with meckel's diverticulum was gangrenous. Resection of gangrenous segment with end to end anastomosis was performed. This was followed by ubilicoplsty. The post-operative period was uneventful. She was discharged in satisfactory condition on 7th post-operative day. The patient has been in follow up for last six months with no new problem.



DISCUSSION

The incidence of a completely patent VID is reported to be 0.0063–0.067%3. Of all the anomalies of the VID, complete patency of the duct is the rarest [3]. Failure of the obliteration of the embryonic VID leads to various congenital anomalies like meckel's diverticulum, vitelline cord, enteric cyst, umbilical sinus, enteric fistula, or hemorrhagic umbilical mass [1-3]. Patient may present because of the anomaly itself or due to complications secondary to the anomalies like intestinal obstruction due to volvulus, intussusception or adhesions [1-7]. Totally patent VID is a very rare anomaly and very few cases are reported in the literature [2, 3].

Primary closure of the VID at the neonatal period is possible if the patient arrives early without any complications. Where the defect is large as in this case, resection of the loop of intestine near the patent duct followed by primary anastomosis is the procedure of choice [2-4].

CONCLUSION

- Patent VID with prolapsed ileal loop is a rare condition
- The loops may be reduced if patient presents early.
- Delayed presentation may lead to complications like gangrene.
- Prompt diagnosis, surgical reduction, and repair of the defect may provide good results.

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