


## Spontaneous Umbilical Evisceration in An Infant: A Case Report

Yapi L Ake<sup>1</sup><sup>\*</sup>, Rebecca Obro Bonny<sup>2</sup>, Amenankan Sophie Dria Kouassi<sup>2</sup>, Ouattara Sigué Jean Jaurès<sup>3</sup>

<sup>1</sup> Associate Lecturer, Department of Pediatric Surgery Cocody teaching Hospital, University of Felix Houphouet Boigny, Abidjan COCODY, Ivory Coast.

<sup>2</sup> Master-Assistant, Department of Pediatric Surgery Cocody teaching Hospital, University of Felix Houphouet Boigny, Abidjan COCODY, Ivory Coast.

<sup>3</sup> Assistant Head of Clinic, Department of Pediatric Surgery Cocody teaching Hospital, Jean Jaures. University of Felix Houphouet Boigny, Abidjan COCODY, Ivory Coast.

**\*Address for Corresponder:** Ake Yapi Landry, Associate Lecturer, Department of Pediatric Surgery Cocody teaching Hospital, University of Felix Houphouet Boigny, Abidjan COCODY. Email: (akeyapilandry@yahoo.fr)

### How to cite this article:

Ake Y, Bonny Obro B, Kouassi Dria S, Ouattara S. Spontaneous Umbilical Evisceration in An Infant: A Case Report. Iranian Journal of Pediatric Surgery 2026; 12(1): 95 - 101.

**DOI:** <https://doi.org/10.22037/irjps.v11i2.49700>

## Abstract

Umbilical evisceration is an uncommon extreme surgical emergency. The authors report the case of an infant.

A two-month-old male infant was presented with umbilical evisceration following ulceration of infectious origin on a parietal defect. The intestine was reintegrated through the umbilical ring. The post-operative course was complicated by a relapse. In the face of this complication, a laparotomy, an intestinal reintegration and a parietal repair were performed. The 2-week follow-up after discharge was satisfactory with no sign of relapse.

Spontaneous umbilical evisceration is an uncommon and unpredictable complication that should not be overlooked in the follow-up of umbilical hernia in children. Treatment is surgical by laparotomy, intestinal reintegration if the eviscerated intestinal mass is not ischaemic and parietal repair.

## Introduction

In our country, morbidities of umbilical region in children are dominated by common conditions such as umbilical hernia and infectious omphalitis. African infants are more likely to incur this kind of defect. Acute surgical conditions such as umbilical evisceration, which constitutes an extreme surgical emergency are uncommon and rarely reported.<sup>1</sup> We report a case of umbilical evisceration in an infant.

## Case Presentation

The patient in this case was a 2-month-old male infant admitted to the emergency

department for spontaneous umbilical evisceration that had occurred 3 hours before admission. On questioning his mother, the onset of symptoms was thought to date back 8 days before admission, with progressive development of abdominal distension in the context of unquantified fever. This abdominal distension was associated with 3 episodes of food vomiting and one episode of diarrhea. The mother took him to a health center, where he was given medical treatment involving anthelmintic and rehydration salts. Two days later, the digestive problems subsided and a pustule appeared opposite the

umbilicus, with secondary fistulisation leading to ulceration, which was treated with antiseptic dressings, but showed no improvement. It was during incessant crying that the infant presented with evisceration through the umbilicus on the day of his admission, prompting his emergency admission to our facility. The infant's history was marked by the presence of an uncomplicated umbilical hernia.

On admission, the physical examination revealed that the patient was conscious, with moderately pink conjunctivae and no skin folds indicating malnutrition. He weighed 6.2 kg. The temperature was normal (37.8°C). The oxygen saturation was 98%. The abdomen was normal in volume. There was an evisceration through the umbilical collar measuring 1.5 cm in diameter. The eviscerated loops were well colored (**Figure 1**). The abdomen was soft and painless, with no palpable mass. The remaining physical examination results were normal. A biological assessment was performed to check for any signs of repercussion. The blood count revealed anemia (hemoglobin level of 8.4 g/dl), a normal leucocyte counts of 8,300 cells/mm<sup>3</sup> and a normal platelet count of 350,000 cells/mm<sup>3</sup>.

The patient was treated surgically. The procedure consisted of intestinal reintegration and closure of the umbilical ring under general anesthesia (**Figure 2**). The postoperative course was complicated by persistent fever and adynamia from the second postoperative day. The fourth postoperative day was marked by the relapse of the evisceration. A repeat operation was then recommended. A median laparotomy above and below the umbilicus was performed, which allowed the intestine to be reintegrated and the wall to be repaired by detaching and mobilizing the aponeurotic tissue of the rectus abdominis, followed by aponeurorrhaphy using 2/0 Prolene X-stitches and plane - by-plane parietal closure.

We applied a low-compression dressing using Elastoplast. The results of the repeat surgery were satisfactory with normal bowel movements, tolerance of breastfeeding and apyrexia. Discharge was authorized. The follow-up results 2 weeks after discharge was satisfactory (**Figure 3**). The results of the clinical examination were normal. There was no sign of relapse of the evisceration.



**Figure 1:** Preoperative image of the evisceration through the umbilical ring.



**Figure 2:** Image after initial intestinal reintegration.



**Figure 3:** Result at two weeks (A) and one-month (B) post laparotomy, intestinal reintegration and parietal repair.

## Discussion

The complications of umbilical hernia in children are uncommon but serious. They can affect the patient outcomes if they are not treated early.<sup>2</sup> Among these complications, evisceration remains unpredictable, as shown in our case. Factors related to this complication have been reported in the literature and include the age of the infant or child; the size of the lesion; sepsis or umbilical ulceration and

any condition that increases intra-abdominal pressure, such as crying, coughing or positive ventilation.<sup>3-5</sup> In our observation, it was likely that an ulceration following a skin bubo opposite the umbilical hernia was the cause of evisceration. In our case, as in that of most authors, the evisceration was dominated by thin loops. These thin loops remained colored with no signs of ischemia in our

case. This differs from the findings of others authors, however who report ischemia on different portions of the eviscerated loops.<sup>2,6</sup> Ischemic necrosis further complicates the clinical picture. This condition is the cause of extensive intestinal resection. The first challenge in the management of ischemic necrosis is a delay in admission and, above all, in treatment. This is a surgical emergency that cannot be treated with delay. In our patient, the time to admission was long, approximately 3 hours after the infant was referred to us from a health center. Health workers in peripheral centers need to be trained in the recognition of extreme emergencies, the appropriate management of the child and his or her transfer to a specialist pediatric surgical facility. Surgical management was marked by a relapse of the evisceration due to parietal weakness in the umbilical region. In addition to the umbilical ring, there was hypoplasia of the fascia around the umbilicus, which was friable and covered with false membranes. Parietal defects have been reported in the literature as risk factors for spontaneous evisceration<sup>3</sup> In our case, repair of this parietal defect required a repeat operation involving reintegration of the intestine and parietal

reinforcement by aponeurorrhaphy using X-stitches of nonabsorbable thread. Practitioners who perform umbilical hernia evisceration should be aware of the possibility of relapse. Key to preventing this relapse is parietal repair.

### **Conclusion**

Spontaneous umbilical evisceration is an uncommon and unpredictable complication that should not be overlooked when following up umbilical hernia in children. Laparotomic treatment involves intestinal reintegration if the eviscerated intestinal mass is not ischemic as well as parietal repair.

### **Ethical Consideration**

Informed consent was obtained from all individual participants included in the study.

### **Acknowledgment**

Not applicable

**Funding/Support**

Not applicable

**Conflict of interests**

There is no conflict of interest

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