

2023, Volume 10, e10597 ISSN Online: 2333-9721

ISSN Print: 2333-9705

# **Intussusception Prolapsed through the Anus in Infants: In Regards of 3 Cases**

A. Doumbia<sup>1\*</sup>, M. B. Daou<sup>2</sup>, M. Kouyate<sup>3</sup>, O. Coulibaly<sup>2</sup>, B. Kamate<sup>2</sup>, M. K. Djire<sup>2</sup>, I. Amadou<sup>2</sup>, Y. Coulibaly<sup>2</sup>

<sup>1</sup>Pediatric Surgery Department of the Mohammed VI Perinatal Clinic, Bamako, Mali

Email: \*Doumbia\_aliou@yahoo.com

How to cite this paper: Doumbia, A., Daou, M.B., Kouyate, M., Coulibaly, O., Kamate, B., Djire, M.K., Amadou, I. and Coulibaly, Y. (2023) Intussusception Prolapsed through the Anus in Infants: In Regards of 3 Cases. Open Access Library Journal, 10: e10597. https://doi.org/10.4236/oalib.1110597

Received: August 8, 2023 Accepted: September 25, 2023 Published: September 28, 2023

Copyright © 2023 by author(s) and Open Access Library Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/





## Abstract

Acute intestinal intussusceptions (AII) cause a telescoping of a downstream intestinal segment by the upstream intestinal segment. The diagnosis of IIA is based more on abdominal ultrasound than on the classic clinical triad, made up of paroxysmal abdominal pain crises, vomiting and rectal bleeding. IIA is characterized in our African countries by a diagnostic delay leading to a worsening of the general condition of patients. We report 3 cases of prolapsed intestinal intussusception through the anus in infants. The aim of this work is to highlight the experience of our service in the management of prolapsed intussusception through the anus.

# **Subject Areas**

**Pediatrics** 

#### **Keywords**

Intussusception, Prolapsed, Intestine, Anus, Child, Bamako

#### 1. Introduction

Acute intestinal intussusceptions (AII) cause a telescoping of a downstream intestinal segment by the upstream intestinal segment [1]. The diagnosis of IIA is based more on abdominal ultrasound than on the classic clinical triad, which is very rarely complete [2] [3], made up of paroxysmal abdominal pain attacks, vomiting and rectal bleeding. IIA is characterized in our African countries by a diagnostic delay [4] [5] leading to a worsening of the general condition of patients. We report 03 cases of prolapsed intussusception through the anus in in-

<sup>&</sup>lt;sup>2</sup>Pediatric Surgery Department of the CHU Gabriel Toure, Bamako, Mali

<sup>&</sup>lt;sup>3</sup>Pediatric Surgery Department of the Fousseyni Daou Hospital, Kaye, Mali

fants.

The aim of this work is to highlight the experience of our service in the management of prolapsed intussusception through the anus.

#### 2. Observations

Observation 1: 6-month-old infant, female, correctly vaccinated, admitted for rectal prolapse, in whom clinical examination found an infant with poor general condition and a prolapsed mass through the anus (Figure 1(a)). Digital rectal examination reveals a free space between the anal canal and the prolapsed intestine. She underwent manual transanal desinvagination of the prolapsed tube without necrosis associated with a colon abutment defect. The postoperative course was simple.

Observation 2: 8-month-old infant, female, with no known history, admitted for rectal prolapse, in whom the clinical examination found an infant with poor general condition and a prolapsed mass through the anus with a white spot on part of the mass (Figure 1(b)). Digital rectal examination revealed a free space between the anal canal and the prolapsed intestine. She underwent manual transanal desinvagination of the prolapsed tube with necrosis of the caeco-appendix. We performed an ileocecal resection removing the caeco-appendix then an end-to-end ileocecal anastomosis. The postoperative course was simple.

Observation 3: 11-month-old infant, male, with no history, admitted for rectal prolapse, in whom clinical examination found an infant in poor general condition and a mass exteriorized through the anus with a bluish area in places

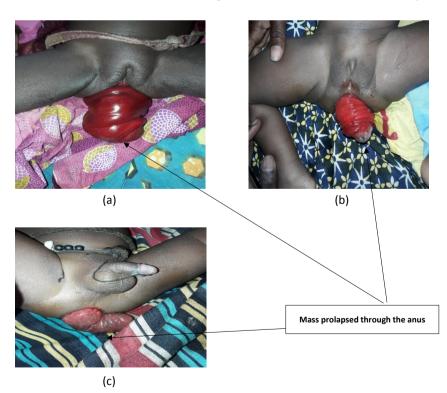


Figure 1. 3 cases of prolapsed intestinal intussusception through the anus in infants.

(Figure 1(c)). Digital rectal examination revealed a free space between the anal canal and the prolapsed intestine. She underwent manual transanal desinvagination of the prolapsed tube with necrosis of the cecum and the terminal ileum. We performed an ileo-colonic resection removing the caeco-appendix then a double-barrel ileo-colostomy. The postoperative course was simple.

#### 3. Discussion

Intestinal intussusception with prolapsed sausage through the anus is rare, even exceptional. Its frequency is very low in developed countries [6] [7]. In Africa and India, prolapsed anal sausage has a higher prevalence ranging from 10 to 40% [8] [9]. Anal prolapse of the intussusception tube is evidence of a lack of attachment of the colon and a long mesentery allowing the tube to progress over the entire colonic frame [2]. In addition to these anatomical factors, prolapsed pudding through the anus could be a late manifestation of IIA [10], the diagnostic delay allowing spontaneous progression up to this stage.

At the early stage, the symptomatology of IIA is often incomplete [11] and misleading, resulting in misdiagnosis and delayed diagnosis. The classic triad combines vomiting, paroxysmal abdominal pain and rectal bleeding which are usually late and considered a sign of seriousness [12].

Abdominal ultrasound is the key examination to confirm the diagnosis [12]. It could have highlighted the invagination flange in the form of a rosette, sandwich or pseudo-kidney image [12], in the case of intra-abdominal location. The prolapse of the intussusception pudding through the anus could be late, ranging from 08 to 11 days [10] [13]. Rectal examination can support the diagnosis as the cases of our patients. In fact, when the intussusception reaches the rectum, digital rectal examination can perceive the head of the intussusception tube [11].

The existence of a free space between the anal canal and the rectum, on the one hand, and the prolapsed intestine, on the other hand, as the case of our patients, makes it possible to affirm the diagnosis of IIA with sausage prolapsed through the anus; whereas in case of rectal prolapse, the finger stumbles 1 to 2 cm from the anal margin [13]. Abdominal ultrasound could no longer show the intussusception tube because of its anal location hidden by the pelvis.

Desinvagination was impossible without the help of manual pushing on the prolapsed tube, as in our patients. The occurrence of intestinal necrosis is common in cases of prolapsed pudding through the anus [14]. It is mainly observed in case of delayed diagnosis [13], because at this stage ischemia sets in and leads to necrosis of the invaginated intestine [11].

### 4. Conclusions

Intestinal intussusception with prolapsed pudding through the anus is rare in infants, not diagnosed by conventional imaging and whose diagnosis was clinical and intraoperative.

The diagnosis is based on the clinic.

The treatment is surgical.

The prognosis is good when treatment is given early.

# **Conflicts of Interest**

The authors declare no conflicts of interest.

#### References

- [1] Bourlière, B., Devred, P. and Panuel, M. (1989) L'invagination intestinale aiguë du nourrisson et de l'enfant. *Feuillet de Radiologie*, **29**, 173-179.
- [2] Grapin, C. (2004) Invagination intestinale aiguë: Décoder les formes trompeuses. *La Revue du Praticien*, **18**, 285-288.
- [3] Mouaffak, Y., Chikaoui, H., Belkhadir, Z., et al. (2005) Les invaginations intestinales aigues: Étude rétrospectives à propos de 25 cas admis au service de réanimation pédiatrique de l'hôpital d'enfant de Rabat.

  https://www.semanticscholar.org/paper/Les-invaginations-intestinales-aigu%C3%A
  Bs-%3A-Etude-%C3%80-de-Mouaffak-Chikhaoui/13db693381e141efc1575382996b
  d0e0f834a23b
- [4] Gnassingbé, K., Abarchi, H., Akakpo-Numado, G.K., *et al.* (2004) Problèmes posés par les invaginations intestinales aigues du nourrisson au CHU Tokoin de Lomé: À propos de 37 cas. *Journal Africain de Chirurgie Digestive*, **4**, 333-337.
- [5] Adejuyigbe, O., Jeje, E.A. and Owa, J.A. (1991) Childhood Intussusception in Ile Ife, Nigeria. Annals of Tropical Paediatrics, 11, 123-127. https://doi.org/10.1080/02724936.1991.11747490
- [6] Chigot, P.L. (1944) Un cas de prolapsus coli-invaginati. Traitement par voie abdomino rectale. *Mémoires. Académie de Chirurgie (France)*, **70**, 673-677.
- [7] Lynn, H.B. (1980) Intussusception in "Holder, Ashcraft-Pediatric Surgery". W.B. Sauders Company, Philadelphia, London, 438-444.
- [8] Singh, S., Dhall, J.C., Singh, S., et al. (1976) An Analysis of 42 Cases of Intussusception. The Indian Journal of Pediatrics, 43, 265-269. https://doi.org/10.1007/BF02751579
- [9] Yadav, K., Patel, R.V., Mitra, S.K., *et al.* (1986) Intussusception in Infancy and Childhood. *Indian Journal of Pediatrics*, **23**, 113-120.
- [10] Ugwu, B.T., Legbo, J.N., Dakum, N.K., et al. (2000) Childhood Intussusception: A 9-Year Review. Annals of Tropical Paediatrics, 20, 131-135. https://doi.org/10.1080/02724936.2000.11748122
- [11] Franchi, S., Martelli, H., Paye-Jaouen, A., Goldsmidt, D. and Pariente, D. (2005) Invagination intestinale aiguë du nourrisson et de l'enfant. *EMC-Pédiatrie*, **2**, 45-57. https://doi.org/10.1016/j.emcped.2004.11.001
- [12] Vandertuin, L., Vunda, A., Gheri, M., Sanchez, O., Hanquinet, H. and Gervaix, A. (2011) Invagination intestinale chez l'enfant: Une triade vraiment classique. Revue Médicale Suisse, 7, 451-455.
- [13] Gnassingbe, K., Akakpo-Numado, G.K., Attipou, K. and Tekou, H. (2008) Invagination intestinale avec boudin prolabé par l'anus chez le nourrisson. *Archives de Pédiatrie*, **15**, 1672-1675. <a href="https://doi.org/10.1016/j.arcped.2008.08.021">https://doi.org/10.1016/j.arcped.2008.08.021</a>
- [14] Weisgerber, G., Mboumba, A., Martin, T. and Boureau, M. (1976) Invagination intestinale aiguë du nourrisson et de l'enfant: Réflexions tirées de l'étude de 200 observations. *La Revue du Praticien*, **26**, 2851-2861.