



ANO Rectal Malformations in Lubumbashi: Case Report and Literature Review

Ilunga Kandolo Simon^{1*}, Kabamba Wa Kabamba Christian², Ngolo Matthieux²,
Matungulu Matungulu Charles¹, Mwarabu Much'Apa¹, Lunbu Luvungu Nora¹, Elmer Delgado³,
Kabyla Ilunga Benjamin², Luboya Numbi Oscar², Mashini Ngongo Ghislain²

¹School of Public Health, University of Lubumbashi, Lubumbashi, Democratic Republic of the Congo

²Faculty of medicine, Department of Public Health, University of Lubumbashi, Lubumbashi, Democratic Republic of the Congo

³Centre of Traumatology and Surgery, Lubumbashi, Democratic Republic of the Congo

Email: *silungak@gmail.com

How to cite this paper: Simon, I.K., Christian, K.W.K., Matthieux, N., Charles, M.M., Much'Apa, M., Nora, L.L., Delgado, E., Benjamin, K.L., Oscar, L.N. and Ghislain, M.N. (2017) ANO Rectal Malformations in Lubumbashi: Case Report and Literature Review. *Open Access Library Journal*, 4: e3662. <https://doi.org/10.4236/oalib.1103662>

Received: May 10, 2017

Accepted: June 5, 2017

Published: June 8, 2017

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Abstract

Three cases of congenital malformation were observed, including cases of anal imperforation at the Lubumbashi Surgery and Traumatology Center in the Democratic Republic of Congo. These cases concerned the anal imperforation observed in three new male babies from the ex-triangle of death in the province of Upper Katanga (The Democratic Republic of The Congo). One case presented dehydration in stage B. Colostomy was the first act to save the three newborns. The colostomies were repaired after reopening the anal orifice. No deaths were recorded.

Subject Areas

Public Health

Keywords

Anorectal Malformation, Lubumbashi, The Democratic Republic of the Congo

1. Introduction

The term “Ano rectal malformation” replaces the former denomination “anal imperforation” which was inaccurate and too restrictive. It brings together a wide range of malformations, although very varied, but united by the same therapeutic concept [1].

Many of these malformations still constitute a therapeutic challenge; the risks of functional sequelae remain very important [2].

The imperforation of the anus is well known since antiquity. For many centuries, doctors, as well as medical practitioners, have tried to create an orifice in

the perineum of children with imperforate anus. Those who survived probably suffered from a form that would later be recognized as “bass”. Those who have a “high” form did not survive this treatment [3].

2. Methods

Our study is a case series.

3. Results

3.1. Patients and Observation

We report three cases received at the center of surgery and traumatology of Lubumbashi in the democratic republic of Congo.

3.2. Case I

Male new-born transferred from manano for non-stool transmission since birth
Physical examination: General condition preserved, conjunctivities well coloured, abdomen slightly distended with decrease of the peristalsis to the occultation. Examination of the anus, **Figure 1** shows the shows the rectal mucosa at about 2 cm from the anal margin obstructing the passage with the presence of faecal matter upstream.

Referral pattern: emergency colostomy and appropriate management. Haemoglobin 16.4 g/dl, blood glucose 96 mg/dl. Weight 2 kg.

Hospitalized on June 2, 2016 q 16 on May 30 colostomy made the same date.

July 25 repair of the anus. On the 5th of August, the colostomy closed. July 7th abdominal bloating and reopening of the colostomy.

3.3. Case II

Male New-born born on 19/6/2017 transferred from manano for absence of meconium since birth (**Figure 2**).

Weight at birth 2700 g.

Physical examination: General condition well with dehydration state type B (skin folds as shown by **Figure 3**) conserved, well-coloured conjunctiva, slightly distended abdomen with non-tympanic tone.



Figure 1. Anal imperforation, case 1.



Figure 2. Colostomy, case 2.



Figure 3. Anal imperforation: Dehydration, case 2.

Sick transferred from Manono on 22/6/2016 for proper management.

Finding: Anal orifice present but not perforated.

Incision of about 6 cm opposite the supposed place of the transverse colon. Finding a pseudo ascite.

Accidental perforation of an intestinal loop (small intestine). Repair of the perforation. Research and exposure of the transverse colon and then a rubber ring. Separate points on the skin and placing the colostomy bag.

The first of July.

Act: Intestinal roughing at 3 cm from the anal margin Arciform incision of the anal margin. Separation of the rectum and the fibric tissues. Extension of the rectum with a clamp and opening at the opening created with a scalpel while respecting the sphincter. Suture with Vicryl 4-0 points separated at the anus followed by a dressing with greasy tulle. Laying a nasogastric tube.

3.4. Case III

Male New-born, born 6/4/2016 in kabalo, transferred on 8/4/2016 for absence of stool since birth. Vomiting and abdominal bloating.

On physical examination, the temperature was 35 degrees Celsius, heart rate 165 beats per minute oxygen saturation of 95 percent. The general condition marked by a suffering facies, greyish complexion, coloured palpebral conjunctivitis with buccal dryness.

Mother's history: Prenatal consultation followed, home delivery and unvaccinated mother. Cut umbilical cord with non-sterile blade

The abdomen distended with tympanic. The umbilical cord covered with a soiled linen.

Anal perforation.

Proscription of oral diet and antibiotic therapy (Metronidazole and ampicillin).

On 9/4/2016 colostomy under general short anaesthesia by minimal incision left paramedic, dissection of the tissues (see **Figure 4**).

Observations: dilation of the tissues.

24/5/2016 Anal plasty under short general anaesthesia after arciform incision at the region level, tissue dissection and rectal exposure. The rectum was imperforate at the distal part thus forming a stump.

Sphincter anal visualized and respected. Dissection close in near releasing thus the intestinal sketch followed by its opening.

4. Discussion

Anal imperforation is a congenital malformation of the anus. There is partial or complete obstruction of the anal orifice. It is discovered during the examination by checking that the baby's anus is open. This can be done by spreading the buttocks with 2 fingers and looking at the opening. If anal imperforation is suspected, it is advisable to ask a doctor to look at the child immediately. For our three observed cases, we note that there is opening at the level of the anus with a little meconium.

The literature shows that a baby with an imperforated anus can still pass meconium if there is another associated abnormality such as an abnormal connection between the vagina and the rectum (recto-vaginal fistula) and that even if one observe meconium, you should check for the presence of an anal opening [4]. All children received at the Lubumbashi Surgery and Traumatology Center were male, while a study on the management of child's digestive surgical malformations in the multi-purpose anesthesia resuscitation malformations revealed that both sexes were Concerned with Ano rectal malformations [5].



Figure 4. Anal imperforation, case 3.

One case out of the three experienced a postoperative complication, in particular an intestinal occlusion after the closure of the colostomy. The study conducted by Guenon found two cases of intestinal occlusion as a post-operative complication [5]. The digestive stomies are a permanent or temporary derivation of the digestive transit, awaiting a treatment of a subjacent pathology. Of the three cases of anorectal malformation received at the Lubumbashi Surgery and Trauma Center, the colostomy was performed on them all while awaiting the opening of the anus. A study carried out in the Ivory Coast on indications and complications of digestive ostomy in paediatric surgery shows that of 21 cases of ostomy, in paediatrics, 8 are concerned the ano rectal malformations [6].

Other authors found that the Ano rectal malformations had as risk factors: maternal job exposure to cleaning agents and solvents, the environmental factors [7]. In our study, we found out that two mothers of the children who presented the Ano rectal malformation were 16 years old and one was 45. We find out again that all the children mothers with the malformation work in the small-scale mining using coltan. Appropriate study could be done to find out if the age below 16 and over 44 and the exposure on coltan are risk factors.

5. Conclusion

Of the three children received for Ano rectal malformation, two came from Manono and one came from Kabalo. They all belonged to the Luba tribe. Manono and kabalo are part of what is called the Congo the triangle of death because for a time an armed movement has sowed terror and the population lived almost in the bush. This region is renowned for the coltan it contains. The diagnosis before the reference was confirmed. No children had a venous line at the time of arrival, while none were eating and one case of dehydration was identified. No case of death but only one case of occlusion as post-surgical complication was recorded. Of the three cases, only one had hung up at home. Urgent referral is a medical obligation but basic beneficial acts such as the venous pathway, the nasogastric tube are non-negotiable to save a human life.

5.1. What Is Already Know on This Topic

- Genetic and environmental factors may contribute to the multifactorial etiology of ARM.
- Associations between ARM and family history of ARM.
- Maternal job exposure to cleaning agents and solvents.

5.2. What This Study Adds

- The ANO rectal malformation was 16 years old and one was 45.
- We find out again that all the children mothers with the malformation work in the small-scale mining using coltan.
- Appropriate study could be done to find out if the age below 16 and over 44 and the exposure on coltan are risk factors.

Conflict of Interests

No conflict of interests.

Authors' Contributions

The authors contributed from the beginning to the end.

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