CASE REPORT

Rectal and genital prolapse in Nigerian newborns: Case reports and review of the literature

AA Folashade, OT Adetutu, FM Bolanle

Department of Paediatrics, Olabisi Onabanjo University Teaching Hospital Sagamu, Nigeria

Abstract

Genital prolapse in the newborn is a rare clinical condition often times seen in association with congenital myelo-meningocele, or this could occur following shigellosis infection. We therefore report two neonates with rectal prolapse following diarrhea and utero-vaginal prolapse associated with congenital spinal bifida.

Key words: Congenital myelomeningocele, genital, prolapse, rectal, Shigella

Date of Acceptance: 16-Mar-2013

Introduction

Genital prolapse was first documented in Egyptian medical papyrus in 1550 BC; neonatal prolapse was not reported till 1723[1] and rectal prolapse was first described in 1912 by Moschcowitz and highlighted in childhood in 1939 by Lockhart Mummery.[2]

Rectal prolapse refers to the extrusion of some or all of the rectal mucosa through the external anal sphincter, usually between infancy and 4 years of age, with a high incidence in the first year of life,[2] although it is uncommon in neonates. Considered as a sign of an underlying condition and not a distinct entity - clinical condition causing increased intra-abdominal pressure, pelvic floor weakness, poor root innervations as seen in Hirschsprungs disease as well as parasitic infection and infestations are known predisposing factors.[3-8] Broden and Snellman proposed a theory to explain the etiology of rectal prolapse. They cineradiographically demonstrated that the entity implies a circumferential intussusception of the rectum, with its origin 3 inches above the anal margin.[9] There are different clinical types of each, and it can reduce spontaneously or manually.[10] Uterovaginal prolapse on the other hand may follow birth trauma, prolonged birth, breech presentationin association with spina bifida.[11] Surgery may be indicated when conservative management fails. Conservative management includes manual reduction and use of Foleys catheter.[12] These cases are being reported to create awareness in our environment. To the best of our knowledge, these are the first cases in our center.

Case 1

A.T. was seen on the 29th day of life with a 23 h (hours) history of anal protrusion, which was gradual in onset with associated bleeding; protusion was preceded by 5 days history of nonbloody diarrhea five episodes per day and no additional history suggestive of increase in abdominal pressure. She was delivered at term at a traditional birth attendant home after a 24-hoursh prelabor rupture of membrane, and was said to have cried immediately at delivery and passed meconium within the first day of life. She commenced mixed feeding in the 2nd week of life. Parents belonged to a low socioeconomic class. She has three older siblings.

On admission, she had a weight of 2100 g, length of 40 cm and occipito-frontal circumference of 36 cm. She was febrile, with a temperature of 38°C and was mildly pale, anicteric with a temporal fluctuant swelling of 3 cm × 1 cm. She was irritable, dyspneic with coarse crackles on both

Address for correspondence:
Dr. Adekanmbi Abiodun Folashade,
Department of Paediatrics, Olabisi Onabanjo University Teaching Hospital Sagamu, Nigeria.
E-mail: wonlash@yahoo.com

Access this article online

Quick Response Code:

Website: www.njcponline.com

DOI: 10.4103/1119-3077.122873

PMID: *******

lung fields. There was tender hepatomegaly of 4 cm below the right coastal margin. External genitalia was that of a normal female. Rectal examination revealed a fleshy erythematous mass measuring 10 cm - protruding from the anus with mild bleeding.[Figure 1] No mass was found on the lumbo-sacral region. Clinical assessment of late onset neonatal sepsis (LONS) with bronchopneumonia and third degree rectal prolapsed in a low birth weight infant was made.

The prolapse was manually reduced on admission but recurred on the third day, and was also manually reduced, but this time a firm strapping was applied with no further re-occurrence. Blood transfusion was given in addition to antibiotics and the child remained well until the parents discharged her against medical advice on the 7th day of admission against all pleas.

Case 2

A baby was admitted on the 2nd day of life on account of swelling on the lower back and abnormal lower limbs noticed at birth with an associated fever and yellowness of the eyes few hours post delivery. She was delivered at term to a 27-year-old primipara at home by spontaneous vaginal delivery following breech presentation. The mother did not attend antenatal care, had premature rupture of membrane 1 week prior to delivery but no peripartum fever. The baby was asphyxiated at birth, with no associated seizures or shrill cry. At presentation, the weight was 2650 g with a length of 45 cm and occipito–frontal circumference of 34 cm. She was febrile, with a temperature of 38°C, irritable and jaundiced with a greenish tinge. There were no dysmorphic features. Central nervous system examination revealed patent and normo-tensive anterior fontanelle and no nucchal rigidity. There was bilateral tallipes equinovarus. A lumbosacral swelling measuring 4 cm × 4 cm with collapsed covering, empty with ulceration on the inferior border was noted [Figure 2]. The anus was patulous with free-flowing greenish feces. Urogenital examination showed normal female external genitalia with reddish fleshy mass protruding from the vaginal introitus oozing greenish fluid through the cervical os[Figure 3]. The thighs were shortened bilaterally. No abnormality was detected in both the respiratory and the cardiovascular systems. A clinical assessment of a term infant with multiple congenital anomalies-(spina bifida, uterovaginal prolapse, congenital tallipes equinovarus and congenital shortening of the thigh) and septicemia were made. She was commenced on antibiotics and the jaundice was managed conservatively with phototherapy. She was subsequently referred for surgical correction of the myelomeningocele. The utero-vaginal prolapse was manually reduced and packed with gauze till referral. No report about outcome was available from the referral center and efforts at reaching parents proved abortive.

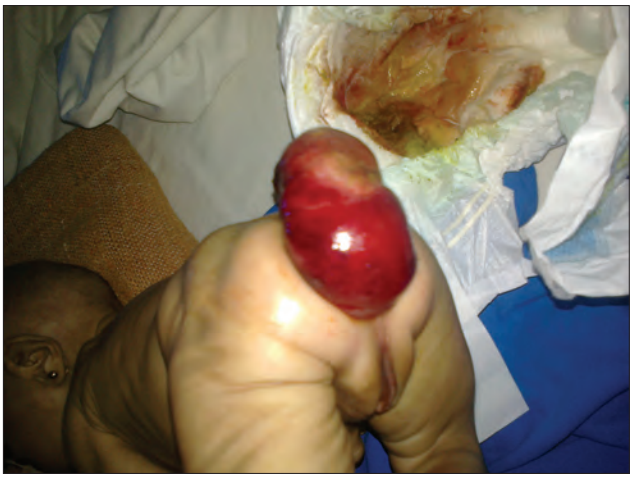

Figure 1: Rectal prolapse (Note the stool stain)

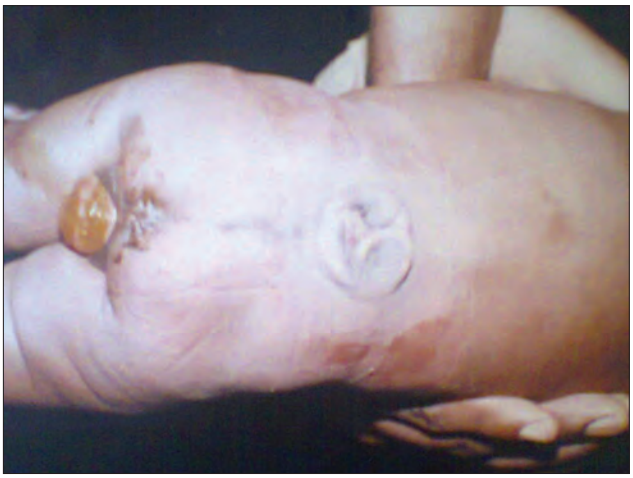

Figure 2: Myelo-meningocele and uterovaginal prolapse in Case 2

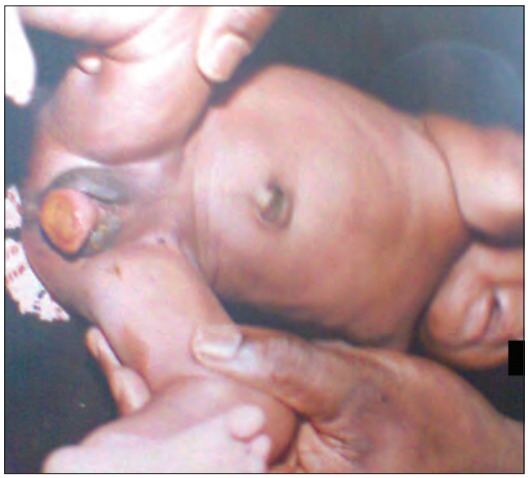

Figure 3: Uterovaginal prolapse in Case 2

Discussion

The case above presented with a preceding diarrhea, a known underlying predisposing factor in rectal prolapsed,

although Shigella (a known associated factor) was not isolated from the stool presumably because the episode of diarrhea had subsided before presentation. This is similar to the case reported by Villareal *et al.*, who reported prolapse in a neonate with shigellosis, although the former was exclusively breastfed and presented earlier at the age of 10 days, unlike ours.[13] Similarly, other identified risk factors were absent in this child as meconium was passed within 24 hrs of life. There was also no history of constipation. However, a sweat test to exclude cystic fibrosis could not be carried out due to the lack of facility and cost, as the parents were of a low socioeconomic status, and this is further corroborated by their discharge against medical advice. Retroviral screening was negative, thereby excluding HIV infection as a possible cause. A plausible risk factor may also be an intrauterine malnutrition suggested by an hypothesis by Van Rensburg,[14] and the case weight at presentation was low in spite of being a term baby. Although birth weight was not known, the diarrheal episode might be a contributory factor to low weight recorded at presentation. Respiratory distress in the patient might likely be a contributory factor; however, this has not been reported in the past although chronic respiratory distress was alluded to in the literature.[15] Prolapse was manually reduced twice and did not necessitate surgery. This observation conforms with a known report of rectal prolapse undergoing spontaneous or manual reduction. The parents discharged their ward- against medical advice because the prolapse-, which was the main reason for presentation, had reduced and therefore they felt that further stay was no longer justified.

The second case had identifiable risk factors of spina bifida, breech presentation with possible prolonged labor in a primipara. According to the Malpas,[16] classification, this patient would be classified as primary utero-vaginal prolapse with neurologic etiology. Spinal X-ray and abdominal ultrasound scanning were not performed to exclude VACTER association, although clinically the kidneys were not ballotable and the presence of congenital spinal bifida was thought to be responsible for the uterovaginal prolapse. This is in addition to the financial constraints of the parents, who were not able to pay for the investigations. The authors are not aware of a syndrome comprising all the anomalies noted in this patient. The presence of other congenital anomalies is similar to the case reported by Lockwood.[2] Various modalities of treatment are advocated, and conservative management is said to be curative.[12] Thus, digital reduction of prolapse was achieved in this case. Genital prolapse is said to be more common in adult females than in males, and our cases were both females.[2]

Conclusion

These cases are rare in the newborn and have therefore been presented to create awareness and also to highlight the usefulness of manual reduction when such cases are seen, and to watch out for these anomalies in neonate with diarrhea and spinal bifida. Prompt treatment of diarrhea and septicemia are also advised.

References

1. Lockwood G, Durkee C, Groth T. Genital prolapse causing urinary obstruction and hydronephrosis in a neonate: A case report and review of literature. J Neonat Surg 2012;1:39.
2. Lockhart-Mummery JG, Rothenberger DA, Madoff SM. Treatment of rectal prolapsed in th elderly by perineal rectosigmoidectomy Dis Colon Rectum 1992;35:830-4.
3. Siafakas C,Vottler TP, Andersen JM. Rectal prolapse in Peadiatrics. Clin Paedatr 1999;38:63-72.
4. Mann CV Rectal prolapse. In: Morson BC, Heinemamm W, editors. Diseases of the Colon, Rectum and Anus. London: Medical books; 1969. p. 238.
5. Hinninghofen H, Enek P. Fecal incontinence: Evaluation and treatment. Gastroenterol Clin North Am Jun 2003;32:685-706.
6. Katz C, Drongowski RA, Coran AG Longterm management of chronic constipation in children. J Pediatr Surg 1987;22:976-8.
7. Candela G, Grillo M, Campione M, Casaburi V, Maschio A, Sciano D, *et al*. Complete rectal prolapsed in a patient with Hirschsprung disease: A clinical case. G Chir 2003;24:289-94.
8. Orenstein DM, Winnie GB, Altman H. Cystic fibrosis: A 2002 update. J Pediatr Feb 2002;140:156-64.
9. Broden B, Snellman B. Procidentia of the rectum studied with cineradiography. A contribution to discussion of causative mechanism. Dis Colon Rectum 1968;11:330-47.
10. Andrew SF, Eustace SG, Daniel HT. Recurrent rectal prolapse following primary surgical treatment. Paed Surg Int 2010;26:427-31.
11. Loret de Mola JR, Carpenter SE. Management of genital prolapse in neonates and young women. Obstet Gynecol Surv 1996;51:253-60.
12. Abdelsalam SE, Desouki NM, Abd Alaal NA. Use of foley catheter for management of neonatal genital prolapsed: Case report and review of literature. J Pediatr Surg 2006;41:449-52.
13. Villareal M, Blum P. Prolaso rectal en un recien nacidos con diarrhea por Shigel. Arch Argent Pediatr 2010;108:e17-9.
14. Van Rensburg JA. Neonatal prolapsed not associated with CNS disorder Available form: www.icsoffice.org/Abstract/Publish/106/000232.pdf [Last accessed on 2013 MAR 1].
15. Bush A. Recurrent respiratory infections. Peadtr Clin North Am 2009;56:67-100.
16. Nwako F. Rectal prolapse in Nigerian Children. Int Surg 1975;60:284-5.

How to cite this article: Folashade AA, Adetutu OT, Bolanle FM. Rectal and genital prolapse in Nigerian newborns: Case reports and review of the literature. Niger J Clin Pract 2014;17:119-21.

Source of Support: Nil, **Conflict of Interest:** None declared.