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Penile and Scrotal Diseases
Case report

Scrotoschisis in Aba, South East Nigeria: A case report

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KEYWORDS
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Abstract
Introduction: In scrotoschisis, there is a congenital defect on the scrotal wall through which the testis extrudes and becomes extracoporeal lying outside the scrotal cavity.
Observation: This is a rare congenital abnormality as only about 10 cases have been reported in the English literature. This is the first case of this condition reported in Aba, Abia State of Nigeria to the best of our knowledge.
Conclusion: Scrotoschisis is treated by returning the testis to the scrotal sac followed by orchidopexy. The immediate and short term results of treatment are good, although there is need to follow up the patient until puberty.

Introduction

Schistoschisis is a rare form of ectopic testis where the descending testis eviscerates through a scrotal wall defect. Globally about 10 such cases have been described in the English literature [1,2]. Shukla et al. [1] and Ameh et al. [2] have reported cases of scrotoschisis in Northern Nigeria. This is the first case of this condition reported in Aba, South East, Nigeria.

The exact cause of this abnormality has not been established but there are theories that have been postulated. These include gubernaculuar abnormality, local mesodermal abnormality, ischaemia of the scrotal wall and the meconial periorchitis theories among others [1–3].

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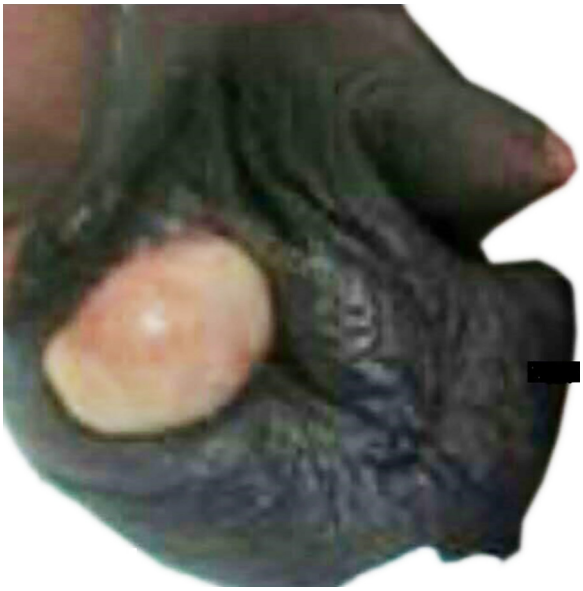

Figure 1 Scrotoschisis of the right testis.

We report the first case of scrotoschisis seen and managed in Abia State University Teaching Hospital, Aba, South East Nigeria.

Case history

OA, a one day old neonate was brought to our clinic by the mother about 12 h after birth with the compliant of a 'fleshy' protrusion from the right hemiscrotum noticed at birth (Fig. 1).

The baby was delivered in a maternity home at term via spontaneous vertex delivery. The mother, a primip, had antenatal care in the maternity home. In addition to the routine drugs she received, she also had some native medications during the antenatal period. There was no injury to any part of the body during delivery.

Examination showed a neonate in no obvious distress and who weighed 3.6 kg. He was afebrile, not pale, not jaundiced and not dehydrated. The genitalia showed a normal uncircumcised phallus with the right testis protruding via a defect on the anterior- superior aspect of the right hemiscrotum (Fig. 1). The defect was oval, about 2 cm in diameter. The extruded testis was adherent to the edges of the defect. The left testis was in the left hemiscrotum. There was no discharge from the scrotal wound. There was no other abnormality noted on this baby. We diagnosed right hemi scrotoschisis with extrophy of the right testis. The defect was covered with saline soaked gauze until 3 days after birth when the parents gave consent for surgery. In the theatre, with total intravenous anaethesia, the testis was released from the edges of scrotal defect and washed with warm normal saline. After taking an incisional biopsy from the tests, it was returned into the scrotal sac and orchidopexy done. The scrotal defect was closed in layers using polygalatin 3/0. Post-operative period was uneventful and baby was discharged after 24 h. The patient has been followed up for $1^1/2$ years. The testis is still within the scrotum and he has attained all developmental milestones for his age. Histology report of the testicular tissue showed seminiferous tubules struded with sertoli cells and few Leidig cells.

Discussion

In scrotoschisis, a defect occurs on the scrotal wall which makes the testis on its normal path of descent to lie outside the scrotal sac. There are many theories trying to explain this condition. The meconial periorchitis theory sounds more plausible. In this, there is a late rupture of the scrotal skin due to an inflammatory reaction occasioned by exposure to meconium. This meconium is extruded from a loop of gut and passed through a patent peritoneo–vaginal condiut (PVC) [1]. Another theory is that of early rupture of the amnion resulting in disordered morphogenesis on the abdominal wall including the scrotal wall [1–4]. Other postulation are External compressive forces, as may occur in arthrogryposis, disrupting the scrotal wall [1], hyperactive or misdirected pha gocytic action of gubernaculum testis [1–4], localized infective or ischaemic processes; failure of differentiation of scrotal mesenchyme, which leaves the gubernaculum covered with only a thin layer of epithelium; and trauma to the developing scrotal skin [1]. We could not identify the cause of the scrotoschisis in our patient. However the mother took some local herbs during the antenatal period. Such herbs could have teratogenic effect. Scrotoschisis is rarely associated with other congenital abnormalities as only one of the reported cases was associated with jejunal atresia [1]. Our patient did not have any other obvious congenital abnormality.

Parental anxiety makes them seek urgent medical attention. Scrotoschisis however, may be complicated by testicular torsion [2] making it an emergency.

Treatment is by immediate repair by returning the testis into the scrotal sac followed by orchidopexy. If torsion occurred, orchidectomy with orchidopexy of the contra lateral testis is done [2].

Although the immediate and short term results are good, there is the need to follow up the patients until puberty.

Conclusion

Scrotoschisis is a very rare congenital abnormality. The immediate and short term results of treatment is good.

Conflicts of interest

There are no conflicts of interest.

Consent from the patient

A written consent was obtained from the parents.

Source of funding

No external funding. The patient's parents paid the medical bills, while the authors paid for the cost of production of the article.

Authors' contributions

N. Eleweke: Observation, examination, diagnosis and management of the patient. Manuscript writing and submission.

G.O. Achor: Literature search and writing of manuscript.

A.U. Offiah: Histopathological analysis, literature search, preparation of manuscript.

U.C Uchefunna: Involved in all aspect of patient management; did the case report; literature search.

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