PERINATAL TESTICULAR TORSION: A CASE REPORT

Shahin Nariman MD, Ahmad Khaleghnejad-Tabari MD

Torsion of the testicles is typically seen in children of prepubertal age. This condition is extremely rare in perinatal period. The perinatal diagnosis of spermatic cord torsion is often difficult. Here, we report a case of a male newborn baby who was born with swollen and erythematous scrotum. Ultrasonography showed an enlarged left testis, with a nonhomogeneous texture and a regular border, bilateral hydrocele, and septate fluid collection on the left side.

Following the diagnosis of acute scrotal condition, surgical exploration was performed. The left testis was gangrened with a blue coloration because of complete extravaginal torsion. Left orchidectomy, along with a fixation of right testis were carried out.

Perinatal extravaginal testicular torsion, although a rare condition, is a true immediate emergency that needs early and quick medical attention, and surgical intervention to save testicular tissue.

Keywords: Neonate • testicular torsion

Case Report

A one-day-old male neonate was admitted to the newborn ward with a history of enlarged and swollen scrotum. The neonate had been born by cesarean section at term, following an uneventful pregnancy.

The general condition of neonate at arrival was satisfactory with a pulse rate of 140 beats/min, respiratory rate of 26 breaths/min, an axillary temperature of 37°C, and a weight of 3.5 kg.

The only positive finding on physical examination was a nontender swollen scrotum with firm, hard, and large scrotal mass that does not transilluminate. Usually the mass is not tender, and the child does not appear to be disturbed by this. Although early exploration is the golden rule in this situation, most testes are gangrenous at the time of exploration.

Introduction

In the newborn period, the testis has just descended into scrotum and the gubernaculum has still not become completely attached to the scrotal wall. Therefore, the testis and gubernaculum are free to rotate within the neonatal scrotum. In this age group, the entire testis, epididymis, and tunica vaginalis may twist together in a vertical axis on the spermatic cord. This condition is known as the extravaginal torsion of the testis. The more common form of testicular torsion that occurs after puberty is classified as intravaginal torsion. Occasionally, the neonate is presented with a firm, hard, and large scrotal mass that does not transilluminate. Usually the mass is not tender, and the child does not appear to be disturbed by this. Although early exploration is the golden rule in this situation, most testes are gangrenous at the time of exploration.

This report describes a case of testicular torsion during the perinatal period and reviews the clinical aspect of this entity.

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It seems that this problem happened during pregnancy, because the left testis was completely gangrened and there was no way to save it. No bleeding following incision of the left testis was evident, suggesting the presence of an irreversible ischemia. As a result, we decided to perform left orchiectomy and after fixation of the right testis, scrotum was sutured.

The neonate was discharged from hospital two days after operation with good health.

Discussion

Unilateral extravaginal neonatal torsion of the spermatic cord was described first by Taylor in 1897. In 1948, Campbell first cited a case in the United States, and in 1955, Longino and Martin reported a series of 9 cases during a period of 15 years in a single institution. The number of cases reported has increased to over 100 cases.

The distinctive pathological anatomy, clinical presentation, and perinatal occurrence distinguish neonatal torsion from torsion of the testicles in the older age group.

Neonatal testicular torsion is divided into two groups: (1) prenatal testicular torsion presenting at birth (torsion in utero) and (2) postnatal testicular torsion (torsion within the first 30 days of life).

In a literature review, it was found that 72.4% of neonatal torsions were prenatal and 27.5% occurred during the postnatal period. Only 0.5% of cases had difficulty in establishing the onset of presentation. Numerous studies have found that spermatic cord torsion was extravaginal and supravaginal accounting for 92% of cases. In a solo case this was found to be intravaginal.

The differential diagnosis includes inguinal hernia with or without incarceration, torsion of testis appendix, hydrocele, hematocoele, epididymo-orchitis, idiopathic infarction of the testis, ectopic spleen or adrenal rests, and benign and malignant tumors of the testis and epididymis.

In contrast to postnatal torsion, the prenatal or in utero torsion in the newborn mostly is insidious and asymptomatic. The patient has an edematous hemiscrotum at birth, with a scrotal swelling that does not transmit tight. In most cases, there are no associated symptoms such as pain or pyrexia.

Perinatal torsion of the spermatic cord does not appear to be related to prematurity, low-birth-weight, mode of delivery, or perinatal trauma and both sides are affected equally.

The role of color Doppler ultrasonography is emphasized in directing the patient to emergency surgical exploration.

Although neonatal torsion is quite rare, it is an abnormality which must be recognized in an urgent fashion if the testicle is to be salvaged. Hence, all pediatricians and emergency physicians should be aware of the clinical presentation of testicular torsion, thereby allowing rapid intervention and preservation of the testicle.

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References