Penile Birth Defects

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There are many types of congenital abnormalities occurring in male genitalia such as penile agenesis or testicular agenesis. Some deformities could be minor and may cause no harm; whereas some others can be severe and may require treatment such as surgeries.

Penile torsion is a common birth defect wherein the penis of the infant appears to be twisted or rotated on its axis. In males with Persistent Müllerian duct syndrome**,** along with normal (male) reproductive organs, female reproductive organs such as uterus and fallopian tubes will be present.

Congenital absence of the vas deferens refers to the condition in which the vas deferens (tubes carrying sperms from the testes) did not develop properly. Testes will be developed and function normally; however, the vas deferens will not transport the sperms resulting in infertility among the men. Although ethnicity plays a role in the length of the penis, the lower limit of any normal adult penis would be around 9.3 cm; however, in the condition of Micropenis, it could measure less than 2.5 cm during birth.

Aposthia

A rare birth defect, Aposthia, is where the penis will not have a foreskin. The foreskin usually starts to develop in the 3rd month during the gestation period and the ventral part of the foreskin will get closed in the 5th month (of gestation period). The growth of the foreskin depends upon androgen and of course, androgen receptors.

Webbed Penis

Webbed penis is a birth defect in which the size of the normal penis is masked as it is obscured in the prepubic tissues that are enclosed in penis palmatus. Due to this condition, the penis will have a pseudomicroscopic appearance. There are two main classifications: 1) primary webbed penis and 2) secondary webbed penis. There are a variety of surgical techniques for modifying the webbed penis.

Chordee

While the baby develops in the uterus, chordee happens, resulting in curved penis. In some cases, the urethra will be short or thick tissue may surround the urethra or the skin present on the bottom portion of the penis may be very short. Prevention guidelines are not available as the exact cause for chordee is not known.

Though chordee will not create pain, the downward curvature is evident during erection. The urethral opening is seen at the bottom of the penis rather than at the penis tip. This condition is found to be very common among children with hypospadias or when hypospadias runs in the family.

Epispadias

An uncommon defect—epispadias presents as a short wide penis with an abnormal curvature. As the urethra is not developed fully, the individual faces difficulty during urination. Instead of the penis tip, the opening of the urethra is seen at the side, on the top, or open all through the shaft of the penis. While mild cases may not need treatment, severe forms need to be corrected by a surgical procedure. The treatments are aimed to make the penis look and function normally. Mitchell technique and modified Cantwell technique are common surgical methods used for correcting epispadias.

Hypospadias

In the case of hypospadias, the urethral opening is seen on the underside of the penis rather than on the penis tip. The position of the opening decides the severity of hypospadias. The opening may be nearby the base or head of the penis, middle of the penis shaft, or even beneath the scrotum. This defect is quite common and is treated by repositioning the meatus and straightening the penis shaft. Usually, surgery is done in infants at 3–18 months of age.

Diphallia

Diphallia, also called penile duplication, is quite uncommon and occurs in about 1 of 5.5 million births. Individuals may have double glans, with or without any other associated defects. Diphallia happens around the 3rd–6th week of

gestation. Diagnosis is confirmed using ultrasound. The erectile function could vary significantly: one or even both the penises can erect; in some cases, simultaneous erection or ejaculation is also possible.

Testes-Related Defects

When there is only one testis, the condition is called monorchia.

When more than two testes are present, it is called polyorchidism. In about 75% of the cases, the supernumerary testes are seen in the scrotum; however, other rare locations include the inguinal canal, abdominal cavity, and retroperitoneum.

In most cases, polyorchidism does not show any symptoms, although some report scrotal swelling/pain, infertility, varicocoele, hydrocoele, testicular malignancy, and epididymitis. Complications such as testicular torsion are most frequently reported.

Depending on the testicle's venous drainage, polyorchidism is categorized into Types A or B.

Cryptorchidism happens when the testis does not descend in the usual place in the scrotum. Cryptorchidism is associated with a higher risk of testicular torsion, testicular cancer, and developing hernia in the groin area. The two types of cryptorchidism are isolated cryptorchidism and syndromic cryptorchidism.

An individual diagnosed with microorchidism has abnormally small testicles with testicular volume between 12 and 20 ml in adults.

When testicular tissues are absent, the condition is called anorchia.

Sources:

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Further Reading

- All Penis Content
- Penile Curvature - Peyronie's Disease, Dupuytren's Contracture
- Hypospadias outcomes
- Hypospadias
- Hypospadias Research

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