An interesting case of Epispadias - 15 yr old boy presented with inability to void urine in standing position and splaying of urine. On Examination - Normal looking penis with complete prepuce. On retracting the prepuce Epispadias was revealed. After investigation patient underwent Epispadias repair with penile disassembly technique. Post-op - uneventful. The diagnosis of this condition is often missed in the neonatal period, thus patients tend to present late. A high index of suspicion is required to make the diagnosis, it should be suspected in any child presenting with incontinence, short penis, ballooned prepuce on voiding and absence of penile raphe or frenulum.

Keyword : Epispadias, Dorsal Chordee, Ventral prepucial hood, Dorsal Urethral meatus, Penile disassembly

Figure 1 Extrophy-Epispadias Complex

Introduction:
Epispadias is a rare urogenital malformation. Usually the prepuce is absent on the dorsal aspect of the penis. The presence of a complete prepuce associated with Epispadias has been described in very few patients. The Extrophy-Epispadias complex (Figure 1) comprises a spectrum of congenital abnormalities that includes classic bladder Exstrophy, Epispadias, cloacal Exstrophy, and several variants. Each of these anomalies is thought to result from the same embryologic defect
Epispadias is a variant that displays normal bladder formation but incomplete urethral tubularization from the bladder neck down. In male Epispadias the phallus is short and broad with dorsal chordee. The Glans lies open and flat like a spade, and the dorsal component of the foreskin is absent. The urethral meatus is located on the dorsal penile shaft, anywhere between the penopubic angle and the proximal margin of the Glans. Prevalence of Exstrophy with complete Epispadias is 1 in 30,000 births; Epispadias alone occurs less frequently than Exstrophy, the ratio being in 1 in 4. Isolated Epispadias is often associated with late presentation because it is a very rare condition and the penis appears grossly normal, thus, the diagnosis is easily missed during the neonatal period.

**Case Report:** A 15-year-old boy presented with history of unable to void in standing position, Splaying of urine & wetting his undergarments. Examination revealed a short and broad penis with complete prepuce (Figure 2 & 3). On retracting the prepuce, Epispadias at mid shaft level was revealed. Glans was split dorsally (Figure 4). There was a slight dorsal chordee with ventral hood of skin (Figure 5). The corpora cavernosa were split on either side of the urethral Groove (Figure 4 & 6). The urinary stream was directed dorsally with splaying of urine. The patient was continent. External genitalia & abdominal wall was normal (Figure 2 & 3).

**Figure 2 Concealed Epispadias**

**Figure 3 Lateral profile**

**Figure 4 Epispadias**
Pre op workup: Routine investigations were normal. Abdomen & Pelvis Ultrasonogram & X-ray pelvis was normal.

Saline Test: Performed by injecting on each corpus cavernosum as there was no communication between the Cavernosum (Figure 7) - Minimal dorsal chordee was present. Circumcision incision was made & the Penis was degloved to reveal the extent of defect (Figure 7 & 8).

Chordee was released (Figure 8).

The two corpora cavernosa were separate & found to be ventrally placed, whereas the deficient corpora spongiosum was found dorsally. The urethral plate was wide distal to the present urethral meatus..(Figure 9).

Fig 5 Ventral hood of skin
Fig 6 Split Corpora Cavernosa

Fig 9 Urethral plate distal to urethral meatus
The urethra was released from the dorsal penile corpora with parallel strip incisions. With preservation of the underlying corpus spongiosum mesentery, the urethra was tubularized & placed on the ventral shaft (Figure 10 & 11).
Bilateral Corporoplasties were then carried out to join the corporal bodies dorsally (Figure 12 & 13)

Post-op: Immediate post-op was uneventful. Patient voided with a good stream in a standing position after the urethral catheter was removed on post-op day 8. Follow up – 6 months: Patient was followed up every month. Penis was near normal in appearance without dorsal chordee (Figure 14), able to void in standing position with good stream (Figure 15).
Complications: No Immediate or Late complications encountered

Discussion:
Epispadias represents one end of the spectrum of the Exstrophy–Epispadias complex. Although Epispadias is considered to be the least severe defect of the Exstrophy–Epispadias complex, the treatment of this anomaly is far from trivial. Literature search shows that no reported series is large enough to make definitive statements about rates of satisfactory cosmesis or continence. In case of isolated Epispadias the penis had a satisfactory cosmetic appearance with no significant dorsal chordee post-operatively. Complications of Epispadias repair include the development of urethrocutaneous fistulas, persistent chordee, urethral stricture, recurrent urinary tract infection and erectile dysfunction. The Penile disassembly technique described by Mitchell and Perovic has drastically improved the results of urethral closure and release of chordee. In isolated Epispadias Partial penile disassembly technique restores the anatomic relationship of the penile components. The diagnosis of this condition is often missed in the neonatal period, thus patients tend to present late. A high index of suspicion is required to make the diagnosis, it should be suspected in any child presenting with incontinence, short penis, ballooned prepuce on voiding and absence of penile raphe or frenulum.

Reference:
Sarin YK, Sinha A. Concealed Epispadias. Indian J Urol 2001;17:183-4