



## COITAL INJURY IN ADULT MALES: A CLINICAL STUDY FROM BURDWAN MEDICAL COLLEGE UROLOGY DEPARTMENT.

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### Abstract

**Introduction:** Coital injuries in adult males represent urological emergencies that range from minor superficial trauma to complete penile fracture with urethral involvement. Despite being relatively uncommon, these injuries have significant functional, sexual, and psychological consequences. The present study evaluates the spectrum, mechanisms, management, and outcomes of coital injuries in adult males presenting to a tertiary-care teaching hospital in Eastern India.

**Methods:** A prospective observational study was conducted over five years at Burdwan Medical College, Burdwan. Adult males presenting with genital or lower urinary tract trauma sustained during sexual intercourse were included. Data collected included demographic details, mechanism of injury, clinical features, imaging findings, operative procedures, complications, and functional outcomes. Patients were followed for up to six months.

**Results:** A total of 18 patients presented with coital injuries during the study period. The majority (72%) were between 21–40 years of age. The most common injury pattern was penile fracture (12 patients, 66%), followed by frenular tear (3 patients), superficial lacerations (2 patients), and urethral disruption (1 patient). Penile fracture was strongly associated with the “woman-on-top” position (58%). Surgical exploration was performed in all penile fracture cases. Mean hospital stay was 2.3 days. Postoperative complications were minimal, with two patients developing transient penile curvature and one reporting mild erectile dysfunction at 6-month follow-up.

**Conclusion:** Coital injuries in adult males are clinically significant and require prompt diagnosis and management. Early surgical intervention ensures optimal sexual and functional outcomes. Public awareness and clinician familiarity are essential to minimize delays in treatment.

**Keywords:** penile fracture, coital trauma, sexual injury, urethral injury, adult male urology

### INTRODUCTION

Coital injuries in adult males constitute a distinct subset of urogenital trauma that predominantly affects sexually active individuals. These injuries range from superficial skin lacerations to severe corporal rupture and urethral damage. Although penile fracture—a rupture of the tunica albuginea—is the most commonly reported severe form, minor injuries such as frenular tear, preputial lacerations, and contusions also occur and often go unreported due to embarrassment or lack of awareness.

The penis, during erection, becomes vulnerable to traumatic rupture because the tunica albuginea thins significantly under tension, reducing its tensile strength by nearly 80% compared to its flaccid state [1]. Forceful bending during intercourse, particularly when the penis slips out and strikes the perineum or pubic bone, can lead to immediate audible cracking, detumescence, and swelling—hallmark features of penile fracture [2]. While the condition was historically described in Middle Eastern literature as “eggplant deformity,” contemporary reports are increasingly common worldwide due to greater sexual activity, reporting behavior, and rising awareness among clinicians.

In India, cultural embarrassment and delayed reporting remain prominent challenges. Many patients initially attempt self-treatment or present late due to social stigma. Delayed intervention is associated with complications including curvature, pain during erection, and erectile dysfunction [3].

The current study evaluates the epidemiology, mechanisms, clinical presentation, management patterns, and outcomes of coital injuries in adult males presenting to a tertiary-care institution in Eastern India. By documenting this series of 18 cases, we aim to contribute to regional data, enhance awareness among clinicians, and highlight the need for early intervention.

## **MATERIALS AND METHODS**

**Study Setting and Design:** A prospective observational study was conducted at the Department of Urology, Burdwan Medical College & Hospital, West Bengal, India, over a period of five years. Informed consent was obtained from all participants.

### **Inclusion Criteria:**

- Adult males (age  $\geq 18$  years)
- Reporting genital or urethral trauma sustained specifically during sexual intercourse
- Presenting within 14 days of injury

### **Exclusion Criteria:**

- Genital trauma unrelated to sexual intercourse
- Iatrogenic injuries from catheterization or instrumentation
- Patients declining consent

### **Data Collected:**

- Demographics
- Mechanism of injury
- Position during intercourse
- Clinical symptoms (audible crack, pain, swelling, detumescence)
- Imaging findings (ultrasound, retrograde urethrogram when indicated)
- Treatment modality
- Operative details
- Postoperative complications
- Erectile function assessed through IIEF-5 scores at 3 and 6 months

**Diagnostic Evaluation:** Penile fracture was diagnosed clinically and supported by ultrasonography when available. Retrograde urethrography was performed in cases with suspected urethral involvement. For minor injuries, physical examination was typically sufficient.

### **Management Protocol:**

- Penile fracture: immediate surgical exploration through a circumcoronal or lateral incision, hematoma evacuation, tunical repair using absorbable sutures, inspection of urethra
- Frenular tears and superficial lacerations: local anesthesia with primary repair
- Urethral injury: suprapubic catheterization followed by delayed urethroplasty

Antibiotics were administered perioperatively. Sexual abstinence was advised for six weeks post-repair.

## RESULTS

**Demographic Profile:** A total of 18 patients met inclusion criteria. The largest age group affected was 21–30 years (50%), followed by 31–40 years (22%). Two patients were above 50.

### Mechanism of Injury:

- Penile fracture: 12 cases (66%)
- Frenular tear: 3 cases
- Superficial laceration: 2 cases
- Complete urethral disruption: 1 case

The predominant mechanism involved forceful thrusting followed by sudden bending. The “woman-on-top” position accounted for 58% of penile fracture cases, consistent with global literature suggesting increased risk due to reduced male control over penetration dynamics[4].

### Clinical Presentation:

- Classic signs of penile fracture were present in all 12 cases.
  - Audible popping sound: 10
  - Immediate detumescence: 12
  - Swelling/bruising: 12
  - Penile deviation: 9
  - Urethral bleeding: 2
- The single case of urethral disruption involved gross hematuria and urinary retention.

### Imaging:

- Ultrasound confirmed tunical discontinuity in 10 fracture cases.
- RGU demonstrated complete urethral disruption in one patient.

**Treatment Outcomes:** All penile fractures underwent surgical repair within 24 hours. Mean operative time was 45 minutes. Minor injuries healed uneventfully with local repair.

### Complications:

At six months:

- Transient penile curvature: 2 patients
- Mild erectile dysfunction (IIEF-5 score 18): 1 patient
- No urethral stricture was noted in the patient with urethral disruption post-urethroplasty

## DISCUSSION

Coital injuries in males present unique diagnostic and therapeutic challenges. This prospective series provides insight into common mechanisms, clinical patterns, and outcomes in a tertiary-care Indian context.

**Incidence and Mechanism:** Penile fracture remains the most frequently reported severe sexual injury, caused by rupture of the tunica albuginea under excessive bending forces[5]. Studies from Europe and Asia consistently identify heterosexual intercourse—especially woman-on-top—as the leading mechanism[6]. Our findings corroborate these trends. The vulnerability of the erect penis is well documented, with intracavernosal pressures exceeding systemic pressures during erection, leaving little buffer to absorb mechanical trauma[7].

**Clinical Diagnosis:** Penile fracture is primarily a clinical diagnosis, with classical features including popping sound, immediate loss of erection, and swelling[8]. Imaging is helpful but not mandatory when clinical findings are obvious.

**Management:**

Immediate surgical repair is the gold standard. Historically, conservative treatment was attempted but led to poor outcomes, including painful erections, nodules, and erectile dysfunction[9]. Early intervention ensures better functional recovery[10,11]. Our zero re-operation rate and low complication rates support the existing literature advocating prompt surgical management.

Frenular tears and superficial lacerations are commonly encountered but underreported. These injuries often heal without functional compromise. However, recurrent frenular tears may indicate frenulum breve and warrant frenuloplasty[12].

Urethral involvement occurs in 10–20% of penile fractures, particularly when the trauma is severe[13]. In our series, one patient exhibited complete disruption requiring staged repair. Literature supports suprapubic diversion followed by delayed reconstruction in complete disruption cases[14].

**Outcomes:** Our 6-month functional outcomes compare favorably with global data reporting 88–95% postoperative erectile function recovery[15]. Penile curvature, when mild and non-progressive, rarely requires intervention[16].

**Psychological Impact:** Coital trauma has significant emotional ramifications. Patients often experience shame, anxiety about returning to sexual activity, and fear of recurrence[17]. Counseling is essential for holistic recovery.

**Public Health and Awareness:** Cultural stigma in India contributes to treatment delays. Community awareness initiatives and clinician training can significantly improve early presentation and reduce complications[18].

**Limitations:**

- Small sample size
- Single-center study
- Six-month follow-up may underestimate late complications

**Strengths:**

- Prospective design
- Uniform surgical techniques
- Comprehensive documentation of injury patterns

**CONCLUSION**

Coital injuries in adult males, though less frequently discussed, represent an important clinical entity with substantial functional implications. Penile fracture is the most severe form and requires urgent surgical correction for optimal outcomes. Minor injuries, though less dramatic, should not be dismissed, as they may impact sexual confidence and future function.

Timely evaluation, prompt surgical repair, and adequate postoperative counseling are essential components of management. Greater public awareness and reduction of social stigma will facilitate earlier reporting and improved patient outcomes.

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